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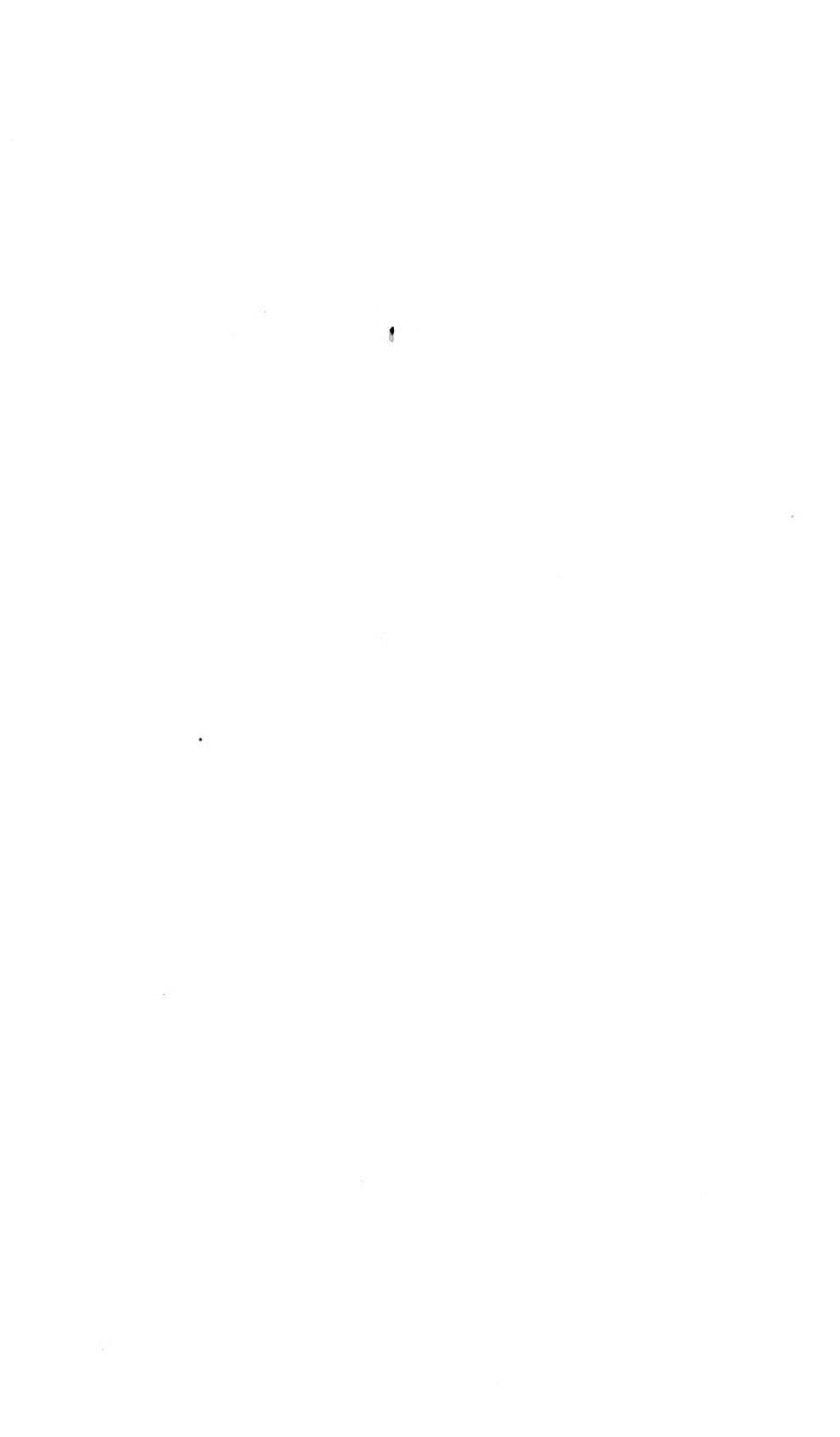
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*AN ANALYTICAL RECORD OF CURRENT LITERATURE RELATING TO
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EDITED BY

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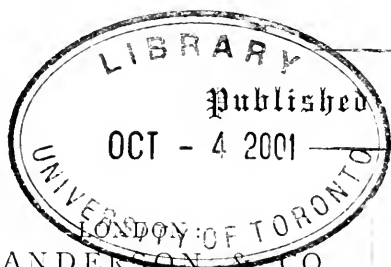
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INDEX TO VOL. III., 1889.

A.

ABSCCESS, retro-pharyngeal, 100
 Aceto-tartate of aluminium, and its use in nasal diseases, 448
 Acromegaly, 308
 Adenitis and œdema of the larynx, a case of acute multiple, 345
 Adenoid vegetations (see also post-nasal, naso-pharyngeal), 352; incomplete operations for, 287; instrument for the removal of, 87; operations for, 252
 Air passages, an œdematous form of disease of the upper, 346; casuistics of foreign bodies in the, 203, 299; dyspepsia reflected in the mucous membrane of the upper, 48; effects of natural gas on the upper, 440; electrolytic operations in the, 448; foreign body in the, 124, 262, 399, 432; leeches in the, 76; menthol in the, 439; papilloma of the upper, 480; relation between chronic diseases of the upper, and hernia, 436; scald of the upper, 474; some manifestations of lithæmia in the upper, 356; some manifestations of syphilis in the upper, 330; therapeutics of the upper, 14
 Air tract, intimate relations between chronic diseases of the, and neurasthenia, 348
 Anæmia, and its relation to nasal stenosis, 439
 Anæsthetics in naso-pharyngeal operations, on the choice of, 177; in operations on the nose and throat, 198
 Anæsthetisation in naso-pharyngeal operations, the position and methods of, 238
 Aneurism, anomalous case of aortic, 517; of the ascending aorta, 298; of the aorta, 517; of the thoracic aorta, 298
 Angina, etiology of idiopathic catarrhal, 162; epidemic of pseudo-membranous at Coppet, 17; Ludovici, 120, 400; primary gangrenous, 415; surgical treatment of infectious, 291; tonsillaris, treatment of, 98
 Angio-neurotic œdema, hereditary, 110
 Answer to Suchanek, 263
 Antifebrin, the uses of, 142
 Antipyrin, idiosyncrasy with regard to, 142; and lanoline, 402; in laryngismus stridulus, 279, 449; combination of morphine and, 449; in whooping cough, 278, 279

Antrum of Highmore, abscess of the, 75; answer to Bayer's paper on empyema of the, 251; cleansing the, 461; contribution to the study and treatment of empyema of the, 109; electric illumination of the, 461; empyema of the, 30, 251, 252; diagnosis and treatment of empyema of the, 75; suppuration of the, 514; treatment of empyema of the, 481; therapeutics of empyema of the, 513
 Aorta, aneurism of the, 517
 Aortic aneurism, anomalous case of, 517; stenosis with tracheal murmurs, cases of, 298
 Aphonia, functional, 253; hysterical, in a woman, aged seventy-one, 116; nervous, 300; nervous, in a child, 300; treatment of, by suggestion, 300
 Apparatus for estimating the intensity of smell, 59
 Aprosexia, 87, 499
 Aptyalism, persistent, 288
 Argyria, 123; case of universal, and laryngeal cancer, 299
 Artificial teeth, swallowing, 100
 Arytenoid, fibroid of the right, 444
 Asphyxia, sudden, from occlusion of the glottis, 398; from occlusion of the larynx by a cherry-stone, 517
 Associated paralysis, 509
 Association Meetings—American Laryngological, 343; American Medical, 402, 434; American Public Health, 444; British Laryngological, 176, 181, 310, 488; Sixty-fourth Meeting of German Naturalists, 86
 Asthma artificially produced in man, 285; as regards its relation to nasal diseases, 284; the so-called nasal form of bronchial, 457
 Aural apparatus, a hitherto undescribed neurosis of, 47
 Auto-intra-laryngeal operation, 514

B.

Bacilli of syphilis in the sputum, 156
 Bacillus of Klebs, facts relative to the longevity of the, 282
 Back-to-back houses, report on, 146

Balsam of Peru in diseases of the lungs and larynx, 448
 Baron, Dr. J. B., 444
 Basedow's disease (*see* Graves, Exophthalmic goitre); cedemas in, 264; without pathological changes of the cervical sympathetic nerve, 83
 Battery, chromic acid, 448; new galvanocautery, 86; zinc platinum, 14
 Blood cyst, 265
 Branchiogenic pavement epithelioma, 21
 Bronchi, foreign bodies in the, 474; tubercular lupus of,
 Bronchitis fibrinosa, a case of, 82
 Bronchocele, the acute, of adolescents, 83; cystic, 303
 Bronchus, a damson stone in the right, 76; a water melon seed in the right, 34; foreign body in, 517
 Buccalcavity, primary tuberculosis of the, 67
 Bursa pharyngea (*see* post-nasal, Tornwaldt's disease), catarrh of the, 460; and Tornwaldt's disease, 105

C.

Camphorated naphthol in tubercular ulcerations, 278
 Cancrum oris, following acute dysentery, 288; recovery from, 288
 Cannula, a broken tracheal, 263
 Cape, the voyage to the, and the climate of South Africa, 279
 Carbolic acid and its allies, 277
 Carotid, ligature of common, for arterio-venous aneurism, 308
 Cases of peculiar character, clinical observations on, 443; of interest in the clinic of the Lariboisière Hospital, 46
 Catarrh, camphoric acid in, 16; of the recessus pharyngus medius and its surgical treatment, 460; the treatment of pharyngeal, 162; the treatment of post nasal by removal of nasal obstructions, 459
 Catarrhal fever, its causes, complications, and sequelæ, 146
 Cervico-thoracic fistula, 433
 Cheek, papilloma of the, 156
 Cheiloplasty, a case of, 379
 Chloroform, death from, 145
 Choanæ, congenital occlusion of the, 457, 460
 Chorea laryngis, 253
 Cigarette smoking, 147; and malignant disease of the throat, 60
 Cigarettes, Egyptian, 146; report of the Lancet Committee on, 147
 Cleft palate, 290; the elements of success in the treatment of, 97; the mechanical treatment for congenital, 462
 Clinical notes, 11
 Coca tablets, 260
 Cocaine, 375; and the larynx, 375; alterations in the voice produced by, 277; intoxication by, 277; poisoning, 449

Cold and disease, 245
 Compression lesions, 392
 Condal water, 358
 Congrès International d'Otologie et de Laryngologie, 216
 Constitutional syphilis, 462
 Consumption, the treatment of, at high altitudes, 144
 Correction, a, 402
 Cortical motor centre for the human larynx, investigations upon, 47, 469
 Coryza, a powder for, 16; caseous, 102; nervous, and salivation, and their relation to the sexual organs, 72; notes on the treatment of acute, 102; sympathetica, vasodilatatoria chronica, 512
 Cough, nervous, 86
 Cranial nerves, motor functions of certain, 68; paralysis of, 288
 Creolin in the treatment of infectious throat diseases, 376
 Cretinism, sporadic, 519
 Cricoid and thyroid cartilages, fracture of, 301
 Croup, 281; large doses of calomel in, 454; the laryngoscopic image of croup, 246; the treatment of, by opium, 407; tracheotomy under chloroform in, 116; turpentine in idiopathic, 246
 Cut throat, a suicidal case of, 77
 Cyst of arytenoid region, 288; laryngeal, 299

D.

Danger of septic infection from nasal and aural discharges, 250
 Davos as a health resort, 144
 Dengue in Egypt, 147
 Diaphragm, respiratory movements of the, 468
 Dilator for stricture of the cesophagus, a, 374
 Diphtheria, 150, 243, 507; alcohol in, 454; and diabetes, 66, 152; at Boston, 410; at Enfield, 66; at Midsomer Norton, 150; at Exmouth, 244; at Llanasa, 244; at Llandissillio, 244; at Llanwddyn, 244; at St. George's Hospital, 149; at Shooter's Hill, 66; at Walthamstow, 244; and cow disease, 149; and scarlet fever, 150; antiseptic effects of medicaments used in, 16; and its attendant sore throat, 65; differential diagnosis from herpetic angina, 19; epidemic, 150, 281, 507; at Buxted and Maresfield, 148; etiology of, 61, 407, 408; exanthema in, 453; in an adult—sudden asphyxia, 149; in Norway, 154; laryngeal without loss of voice, 378; larynx and trachea from a fatal case of, 280; mania cured by pharyngeal, 379; membranous croup; and, 17; moot points in the surgical treatment of, 151; morbid changes in the fauces and larynx in scarlatina and, 242; mortality in London,

increase of, 244; multiple sclerosis in children following, 379; naso-laryngeal intubation in, 245; nature of croup and, 46; notes on twenty-seven cases of, 410; one hundred and twenty-two cases of tracheotomy for, 16; pharyngeal, with complications, a case of, 410; protection in, 245; pseudo locomotor ataxy following, 452; remarks upon, 151, 152; researches upon the bacterium of, 451; statistics of, 243; studies on relation of croup to, 150; tracheotomy in, 308; transmission of, from animal to man, 409; treatment of, 151, 152, 153, 245, 281, 282, 355, 409, 453, 507;

with pulverised sugar, 18, 65;

with antiseptic cauterisations, 18;

with antiseptic steam, 61;

with pilocarpine, 151;

with hydronaphthol, 155, 409;

with corrosive sublimate, 453;

with salicylic acid, 64;

with hydronaphthol and papain, 507;

under different forms, 16; wanton spread of, 149; with complications, 453; with patches in the perineal region, 452

Diphtheritic angina in infants, 282; croup, two hundred cases of intubation in, 410; gastritis, 508; infection, origin of, 17; laryngitis and intubation, 282; membrane, the, 452; otitis media, micro-organisms in, 452; paralysis, case of, 14—of accommodation after slight sore throat, 66;

pathological anatomy of, 155;

sore throat, caustics in, 151

Diphtheritics, respiratory variations in inhalation of oxygen in, 282

Diseases of the eye, ear, throat, and nose, 423; of the larynx, pharynx, and nose, and sulphur waters, 480; of the larynx, trachea, nose, and naso-pharynx, 42; of the nose and eye, some relations between the, 495; of the throat, some new remedies in, 210

Disorders of the throat and nose, and their treatment at watering places, 479

Domestic animals as vehicles of infection, 245

Dust in flour mills, and its effect on animals, 147

E.

Ear, foreign body in, for eighteen years, 123

Electric light, application of, to laryngoscopy, 276

Epiglottitis, angioma of the, 13; different aspects of the normal, 296; hypertrophy of the, 295; the muscles which act upon the, 69; new and only way of raising the, 293, 295; on raising the, 391; the raising of the, by utmost manual extension of the head and neck, 469; the position of the, in inversion, 296

Epilepsy caused by intra-nasal disease, 440

Epistaxis, habitual, 513; irrigation of citron juice in, 103

Epithelioma, of the tongue, fauces, and tonsil, 97 (see cancer, larynx, nose, &c.)

Erythema nodosum, a case of, 19

Excessive thirst a symptom of malignant disease, 67

Exhibition of patients, 280

Eyelids, chronic oedema of the, consecutive to pharyngeal erysipelas, 415

F.

Face, congenital malformation of the, 249; lupus of the, with propagation to the nasal fossae, 426; treatment of empyema of the sinuses of the, 252

Falsetto voice, cure of the, 467

Farcy, a case of, 66

Fauces, papilloma in the, 415

Febrile diseases, concurrence of, in the same patient, 146

Foreign body swallowed, a, 249

Frederick's ataxia, 289

Frontal ectasis, 252; sinuses, empyema of the, 29, 440; purulent catarrh of, consequent upon ablation of polypi, 285

Functional infantile palsy, &c., 398

G.

Gag, cheek-retractor and tongue depressor, 447

Galvano-caustic handle, a new, 14

Gastrostomy, 71, 385; illustrated by a case and specimens, 419; three cases of, 249;

Gengarriff as a health resort, 126

Glossitis, a case of acute, 96

Glossolabial spasm of the hysterical, 157

Glottic spasm of nasal origin, 36

Glottis, spasm of the, of mechanical origin, 299

Goitre, a case of, 303; a case of cystic, 433; constricting, with œsophageal cancer, 304;

cystic, 39; electrolytic treatment of cystic, 438; enormous cystic, with rapid development, and thyroidectomy, 121; exophthalmic, 174, 518—

a case of, 474;

cure of a case of, 304;

cure of a case of, by intra-nasal treatment, 39;

on fever in, 122;

pathology of the central nervous system in, 518;

recent theories as to the pathogeny and treatment of, 121;

surgical treatment of, 434;

treatment of, 304, 434;

galvano-puncture in, 121; operation and paralysis of both recurrents and tetany, 40; report upon 250 extirpations for, 174; value of electrolysis in angiomas and, 303

Goitres, cases of partial removal of, 304;

operations on, 263; statistics of, in the Canton Berne, 474; the treatment of, with iodine, 481
 Gout in the throat, 314
 Grasse as a health resort, 376
 Graves' disease, cure of a case of, by nasal treatment, 39; cutaneous affections in, 264; electrotherapy in, 122; high altitudes in, 122; new signs of, 121, 305; unilateral incomplete, after removal of nasal polypi, 518
 Gullet, cicatricial stricture of, in a child of two, 466; coins in the, 385; foreign body in an infant's, 420; treatment of stenosis of the, 163
 Gum, epithelioma of the, 288
 Gumma, congenital, 308

H.

Hæmorrhage, the relation to unhealthy surroundings, 456
 Hare-lip, dangers to life in operations for, 95; double, 66
 Hay asthma, 59
 Hay fever, 75, 163, 284, 388; pathogeny and treatment of, 284; pseudo, 513; therapeutics of, 74, 75
 Headaches and abnormal conditions of the nasal passages, 28
 Hemiatrophia linguæ, a case of, 412
 High altitudes and consumption, 60; in Graves' disease, 122
 Hoarseness, its causes, importance, and cure, 300; of twenty-eight years' duration, papilloma, laryngo-hæmorrhage, cure, 38
 Hodgkin's disease, 475
 Hordeum malt extract, 311
 Hypnotism, therapeutics of, 450
 Hypodermic pocket case, 401
 Hyoid bone and its connections, the, 69

I.

Illumination, incandescent lamp for laryngeal, 86; of the larynx and other cavities, 14; on my method of, 276
 Incised wound in the thyro-hyoid space, 76
 Inhalation, method of producing neutral fumes of ammonium chloride for, 277; of fluids by the spray, 86; in lung disease, 143; of hot air in phthisis, 143; the value of, 143; respirator, an, 60
 Inhaler, patent chloride of ammonium, 145
 Injury to middle ear by nasal atomisation, the possible danger of, 441
 Instruments for deflection of the nasal septum, improved, 60
 Insufflator, the "J.R.P.," 448
 Internal ear deafness, 440
 International Medical Congress of 1889, the, 522
 Intra-nasal disease and epilepsy, 440; two cases of, 27; pressure, relation of erysipelas and erythema to, 344

Intra-ocular and nasal diseases, 459
 Intubation, a case of, 410, 508; a novel method of, 449; anatomical and other facts in support of, 450; consideration of other and better results from, 443; in diphtheria, 245, 282, 410; of the larynx, 32, 434; and air passages, and a new instrument, as an aid to certain operations, 450; in croup, 32; recent observations relating to, 142; remarks upon, 166; some practical hints in a *résumé* of 206 cases of, 450; *versus* tracheotomy, 435, 449; with ordinary rubber tube, 449

J.

Jeyes' fluid, 311; surgical soap, 175

K.

Kronenquelle water, 310

L.

Lactic acid in laryngeal tuberculosis, 254; in tuberculous ulcerations and lupus, 15
 Laryngeal affections, in late hereditary syphilis, 431; cancer, with hæmorrhage perichondritis, &c., 396; its diagnosis and treatment, 169; carcinoma, 472—
 a case of, with partial extirpation, 37; casuistics and therapeutics of, 261; diagnosis of, 430;
 one case of auto-innoculation, and two cases showing the danger of intra-laryngeal interference, 397;
 statistics of, 78;
 cyst, 299; diseases in typhoid fever, 254; pathology of submucous, 253; enchondroma, subglottic, 50; growths, 470, 515—treatment of, 299, 396;
 hæmorrhage, catamenial, 427; paralysis of constrictor muscles, 428; ictus, a case of 428; image, a photographic study of the, 425—
 during formation of the singing registers, 49;
 mucous membrane, diffuse hypertrophy of the, 111; hæmorrhage from the, 78; muscles, the anatomy, physiology and pathology of the, 32; nerves and muscles, a new experimental method for, 297; papilloma from the body of a child, 50; paralysis from aneurism of the aorta, 33; perichondritis, on typhoid, 515; phthisis, 126, 516—
 a new method of treating, 478;
 and the present method of its treatment, 393;
 a pseudo-polypoid, 35;
 cure and local treatment of, 166;
 curability of so-called, 254;
 high altitudes in, 46;
 on tracheotomy in, 479;

- on menthol in, 439 ;
treatment of, 166 ;
polypus of large size, 429 ; stenoses and their treatment by Schroetter's method, 257 ; stenosis, an obscure case of, 302 — treatment of, resulting from perichondritis in typhoid fever, 258 ;
two cases of complete, produced by wounds of the larynx, 259 ;
surgical casuistics, 431 ; syphilis, 393 ; tuberculosis, a case of primary pseudopolypoid, 296 —
a peculiar obstructive form of, simulating abductor paralysis, 393 ;
indications for the treatment of, 296 ;
menthol in, 256 ;
results of new method of treatment of, 429 ;
tracheotomy in, 261 ;
treatment and cure of, 35 ;
Wiegert's hot-air method in the treatment of, 479 ;
with temporary bilateral abductor paralysis, 393 ;
tumour, spontaneous expulsion by coughing, 514 ; subglottic, 34 —
thyrotomy for, 471 ;
typhoid in a child one year of age, a case of, 38 ; ulcers in typhoid fever, 393 ;
ulceration, imaginary, 44 ; vestibule, a pin implanted in the, 114
- Laryngismus stridulus and eclampsia**, 426
- Laryngitis**, acute rheumatic, of gonorrhœal origin, 442 ; case of tubercular, 114 ; catarrhal traumatic, 429 ; dry, 429 ; hæmorrhagic, 33, 167, 392 ; hypoglossica acuta, 34 ; idiopathic phlegmonous, 167 ; local treatment of tubercular, 254 ; obscure case of cedematous, 78 ; remarks on a case of, 297 ; syphilitic, 430 ; the occasional typical use of nitrate of silver in chronic, 355 ; the treatment of some form of chronic, 50
- Laryngo-fissure**, results of, 87 ; statistics of, 302
- Laryngological Society of Berlin**, cases exhibited at the, 427
- Laryngology**, a decade of, 43 ; an epoch in, 436
- Laryngo-stenosis**, 473
- Laryngotomy** for laryngeal papillomata, 87 ;
interico-thyro-arytenoidean, in cancer of the larynx, 117
- Laryngo-tracheal oæna**, 1
- Laryngo-tracheo-bronchitis** treated by tracheotomy and cleansing with feathers, 81
- Larynx**, and cocaine, the, 375 ; and trachea, stricture of the, 45 ; and trachea, method of examination of the posterior wall of the, 270 ; syphilitic stenosis of, in a child, 168 ; acute necrotic perichondritis of the, in a pig, 166 ; angioma of the, 50 ; cancer of the, tracheotomy, buccal perforation opening into maxillary sinus, 472 ; propagation to thyroid gland, 117 ; cartilaginous tumours of the, 470 ; case of total extirpation of the, 262 ; case of subglottic chronic stenosis treated by dilatation, 45 ; casuistics of foreign bodies in the, 166 ; cauliflower excrescence of the, 515 ; central, and peripheral invagination of the, 382 ; congenital formation of membranes in the, 262 ; congenital growth of, 306, 471 ; correction of Mackenzie's statistics, 262 ; death from impaction of a collar button in the, 473 ; diagnosis and treatment of syphilitic affections of the, 168 ; dilatation of stenosis of the, 111 — in strictures of the, 429 ;
duck bone in the, 399 ; epithelioma of the, and *Thuja occidentalis*, 119 ; extirpation of the, 37, 515 —
partial, of the, 37 ;
total, two and a half years previously, 488 ;
foreign body in the, 35, 114, 115 ; fracture of the, a case of, 397 ; hæmorrhage from the, 357 ; illumination of the, 76, 486, 514 ; instrument for opening the, without previous incision of the skin, 46 ; intubation of the (see intubation), 76, 378, 434, 435 ; lipomata of, clinical notes on, 77 ; local treatment of tubercular phthisis of the, 254 ; malignant disease of the, 117 —
two cases of thyrotomy for removal of, 397 ;
method of studying the action of the intrinsic muscles of the, 350 ; cedema of the, in acute multiple adenitis, 345 ; operations under electric light upon the, 426 ; origin of tubercular ulcers of the, and the relation of bacilli to them, 473 ; perichondritis of the, 78, 166, 302 ; primary erysipelas of the, 296 ; remarks on intubation of the, 166 ; rupture of the, 76 ; sarcoma of the, 119 ; stricture of the, with extensive cicatrization from ulcerative tuberculosis, 45, 112 ; tertiary syphilis of the, 297 ; treatment of so-called phthisis of the, 217, 270, 316 —
of papillomata by means of the curette, 53 ;
tubercular, 516 ;
lupus of the, 516 ;
tumours of the, 296 ;
tumour of the, 396 ; two cases of unilateral abductor paralysis of the, due to nasal reflex irritation, 115 ; unusual manifestations of tuberculosis of the, 353
- Leprosy**, tuberculated, ankylostomiasis, tuberculosis, necropsy, 75
- Lingual artery**, rare anomaly of the, 289 ;
tumour, 381
- Lion essence of beef**, 266
- Lip**, chronic cedema of the upper, 424 ;
epitheliomatous growth of the, 508 ;
primary specific sore of the, 508
- Lithæmia** in the upper air-passages, 356
- Lung**, fibroid phthisis of the left, 78
- Lupus**, erythematosus, 388 ; of the mucous membranes, the anatomy of, 41 ; of the

throat and nose; liquor sodii ethylatis, 359; in, 280; note on a case of syphilis imitating, 366; treated with ice, 280
 Luschka's bursa and Tornwaldt's disease, 287
 Lymphadenoma, 123, 475
 Lymphatic glands, excision of scrofulous, 120; tubercular enlargements of the, 119
 Lymphoid tumour in the right pyriform sinus, 435

M.

Macroglossia, ligature of lingual arteries in, 509
 Malignant tumours, etiology and diagnosis of, 487
 Mandeville case, the, 120
 Massei, Prof., 52
 Maxillary sinus, pathological opening of, in a syphilitic, 283; the local treatment of empyema of the, 109 (see also antrum of Highmore)
 Measles and scarlatina, 25
 Mediastinal glands, primary lympho-sarcoma of the posterior, 519; tumour, a case of, 264
 Medical electricity, 279
 Meningocele, a case of frontal, 309
 Menthol in laryngeal phthisis, 439; the uses of, in the upper air-passages, 439
 Mercury, the biniodide of, 448
 Mouth, diseases of the, 95; epithelioma of the, removal of tonsil, &c., 66; gag, a new, and intubation, 442; leucoma of the, 509; the formation of mucous cysts of the, 462
 Mouths, an infant with two, 508
 Mumps, 519
 Mycosis of the naso-pharynx, 287
 Myxœdema, 41, 83, 399, 475, 487, 519; case of early, 305; case of, 264; committee, report of, 83
 Myxoma of right vocal cord, 117

N.

Narcolepsy, 475
 Nares, congenital bony occlusion of the posterior in a child, 49; obstructions of the, causing nervousness, 424; parasites inhabiting the human, 46; sarcoma of the, 164
 Nasal, and oral respirator, a, 60; affections, lactic acid in the treatment of, 102; bougies, note on, 145; carcinoma, 27; caries complicated with meningitis, 49; cavities, osteoma of the, 458; surgical removal of gummatous growths in the, 103; tumour of (cylindroma osteoidis), 483; cavity, relation between acne and diseases of the, 435; chambers, the anatomy of the, 48, 454
 Nasal disease, ocular symptoms due to, 31; diseases, restriction of the visual area in,

250; the efficacy of the older methods of treatment compared with those of to-day, 455
 Nasal fossæ, foreign bodies in the, 164; papilloma of the right, 422; modification of the customary methods of employing the galvanic loop for polypi of the, 423
 Nasal meatus, soft fibroma of the lower, 250
 Nasal meningocele, 458
 Nasal mucous membrane, tubercular tumour of the, 285; tuberculosis of the, 483
 Nasal obstruction, a cause of, 457; in relation to the administration of anæsthetics, 268; the importance of, 250; tinnitus aurium and, 390
 Nasal passages, cough in its relation to morbid states of the, 442; frequent dependence of persistent headaches upon abnormal conditions of the, 28; warty growths of the, 357
 Nasal pharynx, some points in the pathology and treatment of diseases of the, 348, 445
 Nasal polypi, a blunt hoop for the removal of, 86
 Nasal respiration, the damage of obstructed, especially in school children, 458; significance of obstructed, 480
 Nasal saw, a mechanical, 387
 Nasal septum, a rare case of tumour of the, 104; diagnosis of projections of the mucous membrane on the posterior free edge of the, 484; malformations of the, and their surgical treatment, 104; morbid perforations of the, 442; multiple perforations of the, 284; perforations of the, 478; the treatment of deviations of the, 104; tumour of the, 347
 Nasal speculum, a new, 506; a self-retaining, 215
 Nasal stenosis, anæmia and its relations to, 439;
 Nasal surgery, antiseptic, 49, 121; improvements in, 27
 Nasal tumour, 251
 Nasal vowels, acoustic examination of the, 456
 Nasal wall, operations for skoliosis of the, 458
 Naso-pharyngeal, disease, reflex neurosis dependent on, 106; stammering and stuttering, &c., 165; fibroma, 460; fibrous polypus, extirpation, and cure, 165; polypi with frog face deformity, 388; polypus, colossal, 460; tuberculosis, a case of, 108; tumour affecting the base of the skull, 461; tumours, the removal by operation of, 105
 Naso-pharynx, adenoid growths of the, 164, 287, 425; case of fibroma of the, 32; combined method of examination of the larynx and, 250; enormous polypus of, 87; mycosis leptothricia of, 286; operations for adenoid vegetations of the, 252; polypus, bloodless operation for, 252; syphilitic ulceration of the, 252
 Nebuliser, the, 401
 Neck, a fibro-myxo-chondroma of the, 38; blood cysts of the, 84, 306; case of cystic

- lymphoma of the, 265; deep cellulitis of the, 175; diffuse cellulitis of the, 400; erythema exudativum of the organs of the, 433; foreign bodies in the, 400; lymphomata of the, 400; scrofulous glands of the, and their relation to tuberculosis, 520; tumour of the, 519; unique case of hernia of the pleura in the, 433
- Nerves, case of lesion at the base of the brain paralysing the 5th and hypo-glossal, 247
- Neurasthenia and diseases of the upper air tract, 348
- Neuritis, multiple peripheral, and its occurrence in brassworkers, 290
- New preparations, Bourboule water, 88; Jeyes' surgical soap, 175; Van Houten's cocoa, 175; pinol eucalyptia dry inhaler, 175; coca tablets, 266; lion essence of beef, 266; Kronenquelle water, 310; Jeyes' fluid, 311; vinolia soap and cream, 311; pure hordeum malt extract, 311; Rubinat mineral water, 357; Condal water, 358; unguentum lanolini, 358; hypodermic pocket case, 401; the nebuliser, 401
- Nose, bleeding from the, 103; caries of the, 486; foreign bodies in the, 424; fungi in the, 513; kerato-papilloma of the, 456; larvæ of the sarcophila Wohlhartii in the, 390; mechanism of the, 283; melanotic sarcoma of the, 36; recent advances in the treatment of obstruction of the, 457; relation between diseases of the lachrymal apparatus and the, 29; removal of foreign bodies from the, 251; round ulcer of the cartilaginous septum of the, 513
- Noses, operations for deflected, 488, 512
- Notes, 52, 88, 130, 176, 402, 444, 488, 522

O.

- Obituary, Rudolf Voltolini, 476
- Ocular reflexes of nasal origin, 283
- Oedema, acute, of the sub-epiglottic region, etc., in a diabetic patient, 46, 470
- Oesophageal obstruction, 292
- Oesophagismus, etiological study of, 417; peculiar form of, 418
- Oesophagotomy, case of, 467; for artificial teeth, 101, 420; for cicatricial stricture, 466; for foreign body, 71, 511; for imaginary impaction of artificial teeth, 386; internal, and report of successful cases, 48
- Oesophagus, cancer of the, 385, 467; and gastrotomy, 467; carcinoma of the upper part of the, 87; carcinoma of the, 419; case of cancer with pressure upon the heart, 293; case of deficient, 163; coin retained in, four months, 244, 469; extraction of foreign bodies from the, 26; fatal case of foreign bodies in the, 125; fibrous stricture of the, treated by linear electrolysis, 249; foreign body in the, 293, 420; gastrostomy for stricture of the, 385; simple ulcer of the, 101; spasmodic stricture of the, 101; stricture of the, 163; three cases of malignant disease of the, wearing short tubes, 467; ulceration of the, in diphtheria, 292
- Oral surgery, cases of, 381
- Original Articles: On Laryngo-Tracheal Ozena, by Dr. Luc (Paris), 1; Clinical Notes, by Dr. Tauber (Denver), 11; The Treatment of Papillomata of the Larynx by Means of the Curette, by Prof. Massei (Naples), 53; Enlarged Pharyngeal Tonsil in the Aged, by Dr. J. Solis-Cohen, 59; Membranous Rhinitis, by Dr. F. H. Potter (Buffalo), 89; Cases of Malignant Disease of the Thyroid Gland, by Mr. P. S. Hutchinson (London), 92; On the relative Merits of Early and Late Tracheotomy in Chronic Disease of the Larynx, by Mr. Lennox Browne (London), 131; Syphilitic Fibroid Degeneration of the Nasal Passages and Pharynx, by Dr. J. N. Mackenzie (Baltimore), 139; Notes on the Choice of Anæsthetics in Naso-Pharyngeal Operations, by Dr. F. W. Silk (London), 177; On Parosphresia and Parageusia, by Dr. Charles Warden (Birmingham), 194; On Anæsthetics in Operations on the Nose and Throat, by Mr. Stoker (London), 198; Some New Remedies in Diseases of the Throat, by Mr. Millican (London), 210; On the Treatment of so-called Phthisis of the Larynx, by Dr. John Sedziak (Warsaw), 217, 270, 316; On Position and Methods of Anæsthetisation in Naso-Pharyngeal Operations, by Dr. F. W. Silk (London), 238; Nasal Obstruction in its Relation to the Administration of Anæsthetics, by Dr. F. W. Silk (London), 267; Gout in the Throat, by Sir Morell Mackenzie, 313; Lupus of the Throat and Nose, by Dr. J. M. Hunt (Liverpool), 359; Note on a Case of Syphilis Imitating Lupus, by Dr. Norris Wolfenden (London), 366; A Case of Fracture of the Larynx, by Dr. A. Sokolowski (Warsaw), 367; Notes on a Case of Primary Sarcoma of the Tonsil, by Dr. Norris Wolfenden (London), 403; Some Points in the Pathology and Treatment of Disease of the Nasal-Pharynx, by Dr. J. N. Mackenzie (Baltimore), 445; Inaugural Address, by Dr. P. Smyly (Dublin), 489; On some Relations between the Diseases of the Nose and the Eye, by Dr. Adolf Brønner (Bradford), 495; Aprosexia, by Prof. Guye (Amsterdam), 499
- Oro-nasal inhalers, new, 59
- Ozena, on, 164, 487; and infectious ulcers of the cornea, 283; chlorate of potash in, 513; laryngo-tracheal, 1; the nature of, 442

P.

- Pachydermia laryngis, on, 470
 Palate, adenoma of the soft, 382; Barth's hook, 485; cancer of the hard, 290; cleft, 290, 383; complete adhesion of the soft, to the posterior pharyngeal wall, 383; epithelioma of the soft, 382; hard fibro-sarcoma of the, 87; mixed tumour of the soft, 248; retractor, a new, 374; smoker's, 290; syphilitic perforations of hard, 415; tumour of the hard, 290
 Palatine arches, gummata of the, 413
 Paralysis after typhoid fever, 383
 Parosphresia and parageusia, 194
 Parotid gland, extirpation of the, for sarcoma, 411; surgery of the, 399
 Parotitis, 462; double, of reflex origin, 411
 Pasteur institute, researches upon the bacterium of diphtheria at, 451
 Pharyngeal, erysipelas, cases of, 464; mycosis, 416; tonsil, enlarged in the aged, 59; in health and disease, the rôle of the, 165
 Pharyngitis phlegmonosa, the treatment of, 485, 511
 Pharynx, adenoid hypertrophy of the, 349, 416, 438; anatomy, physiology, and therapeutics of the, 24; diseases of the, 70; electrolytic treatment of chronic catarrh of the, 511; hyperplasia of lymphatic tissue of the, 465; lympho-sarcoma of the, 248; syphilitic stricture of the, 416; tuberculosis of the, 11, 248, 385; ulcerative tuberculosis of the, 416
 Phthisis, hot air inhalation in, 143; hot air treatment of, 443; hydrofluoric acid in, 144; rational treatment of, 377; remarks on the various methods of treatment of, 376; the preferable climate for, 144; the prevention of, 376
 Photographic study of the laryngeal image, 49
 Pin in the laryngeal vestibule, 114; passed per anum in forty hours, 70
 Pinol eucalyptia dry inhaler, 175
 Pneumogastric, the pathology of the ganglion of the trunk of the, 122
 Pocket lamp for physicians, a, 276
 Poisoning, by chloral, 142; from a local application for tooth extraction, 449; from white precipitate, 506
 Polypi, laryngeal, 471 (see laryngeal growths, papilloma, &c.)
 Polypus, case of intra-laryngeal, 471; an operation for nasal, 402; snare, a new, 447
 Porter, Dr. Wm., 176
 Potato cure for foreign bodies swallowed, 249
 Propagation of tuberculosis by flies, the, 41
 Ptyalism, a symptom of adenoids, 97
 Pulmonary gangrene treated by incision and drainage, 279
 Purpura hemorrhagica, 124
 Pyæmia of dental origin, 382

R.

- Recurrent laryngeal nerve paralysis, 78, 473; nerves, effects of varying rates of stimulation upon the, 32, 51
 Reflex neuroses and naso-pharyngeal diseases, 106
 Remarkable case of probably cancerous disease, 247
 Report of British Medical Association collective investigation committee, 84
 Respiratory passages, clinical paper illustrating some affections of the, 109; foreign body in the, 34, 76
 Retro-nasal catarrh, 513
 Retro-pharyngeal abscesses in children, some cases of, 162; tumours, removal of, 162
 Reviews, Schroetter, diseases of the larynx, trachea, nose, and naso-pharynx, 42; Voltolini, diseases of the nose and naso-pharynx, 84; transactions of the Royal Academy of Medicine in Ireland, 123; Gouguenheim and Tissier, laryngeal phthisis, 126; Handemann, the human voice and speech, 265; Miller, the micro-organisms of the mouth, &c., 521
 Rhinitis, chronic, and its sequelæ, 72; chronic hypertrophic, and affections of neighbouring organs, 163; etiology of chronic atrophic, 389; fibrinosa, primary, 29; membranous, 89, 422; new method of treatment of atrophic, and ozæna, 286; pseudo-membranous, 435; treatment of atrophic, by the galvanic current, 49; treatment of, by the galvanic current, 459
 Rhinolithiasis, 27
 Rhinoliths, 103, 250, 284, 389, 424
 Rhinological and laryngological operations in the cocaine era, 477
 Rhinoplasty, a case of, 389
 Rhinoscleroma, 286, 488; inoculation of, in animals, 250; the bacillus of, 458
 Rhinoscope, a plea for the use of the, 105
 Rhinoscopy, a recent improvement in posterior, 374; on posterior, 277
 Rubinat mineral water, 357

S.

- Salivary calculi, 462
 Salivation, mercurial, and ulcerative stomatitis, 381; the treatment of, 157
 Salol in inflammations of the throat, 405
 Scarlet fever, duration of infectiveness in, 279
 Scarlatina in relation to cow's milk, 379
 Scarlatinoid diseases, 146
 Scrofula, and its individual symptoms, 41
 Short reply to Jelenffy's paper, 250
 Skin, pemphigus vulgaris of, mouth, pharynx, and larynx, 383
 Smell, apparatus for estimating the intensity of, 59

Sneezing, paroxysmal, 73, 164; remarks on, 73
 Sozoioidol, and its therapeutic applications, 405
 Speech, disorders of, in the insane, 116
 Sphenoidal sinus, dilatation of the, 425
 Spoon, sharp rotating, for laryngeal growths, 86
 Stomatitis, etiology of ulcerative, 96; ulcerative, 247
 Struma; migrans, 434; case of intra-tracheal, 265; method of operating for, 264; report on the operations for, at the Friederichsham Hospital, 40
 Strumous gland, 250; extirpations of the, 399; pathology and treatment of the, 306
 Submaxillary gland, treatment of the, 20, 21
 Suction of the newborn, 19
 Sulphur springs of Great Britain, 144
 Sulphuric acid, poisoning by, 26
 Supra-hyoid dermoid tumour, 292
 Syphilis, inoculation of, by tattooing, 309

T.

Tea and teeth, 61
 Therapeutics of infancy and childhood, 141
 Throat, anæmic sore, 70; fishbone in, 115; hysterical affections of the, 291; wandering foreign body for nine months in the, 26
 Thymus, hypertrophy of, in children, 517
 Thyroid arteries, a hitherto undescribed arrangement of the inferior, 305
 Thyroid body, cases illustrating the surgery of the, 82; enlarged, associated with epilepsy, 399; gland, accessory, 305, 488—
 artificial anæmia during operations upon the, 174;
 case of sarcoma of the, 353;
 cases of malignant disease of the, 92;
 cancer of the, 305;
 extirpation of the, 399;
 fibroid tumour of the, 174;
 further researches upon the, 173;
 hydatid cysts of the, 263;
 researches on the, 263;
 researches upon the consequences of extirpation of the, 173, 475;
 structure of the, 39;
 surgery of the, 125;
 the condition of the hypophyses after extirpation of the, 475;
 the results of extirpation of the, in dogs, 475;
 tumours, 433
 Thyroidea ima, a very large, 305
 Thyroidectomy, 173; partial, 475
 Thyroiditis, acute, 517
 Thyrotomy, a case for removal of sarcoma, 444; for laryngeal tumour, ten cases of, 171

Tinnitus aurium, relieved by cure of nasal obstruction, 390
 Tongue, accessory thyroid gland in the, 488;
 benign neoplasms of the, 412; black, 20, 381; cancer of the, 412, 509; carcinoma of, 68; case of excision of the, 161; case of primary tuberculosis of the, 380; depressor for children, 60; depressor and insufflator, 374; dermoid cyst of the, 289; epithelioma of the, 20, 288, 380; glandular hypertrophy of the base of the, 437; hypertrophy of glands at the base of the, 247; nævus and macroglossia of the, 380; neuropathic, 289; operation for canceroids of the, 412; papayotin in fissured, 96; primary syphilis of the, 97; syncope and convulsions from forced lowering of the, 413; syphilitic ulceration of the, 160; the only way of raising the, &c., 157; tubercular ulcers of the, 248; and psoriasis of the, 160; tuberculosis of the, 355
 Tonsil, abscess outside causing dyspnoea and dysphagia, 100; affections of lingual 68; alarming hæmorrhage after incision of the, 98; chronic abscess of the right, 99, 291; deep epitheliomatous ulceration of the right, 463; diseases of the lingual, 248; enlarged pharyngeal, in the aged, 59; fibroma of the, 347; ligation of, for hæmorrhage, 23; malignant tumours of the, 292; papilloma of, 463; polypus of the, 86; primary syphilitic ulcer of, 98; removal of supernumerary, 343; sarcoma of the, 50, 384, 403, 413; syphilitic gummata of the, 414
 Tonsillar deafness, 292
 Tonsillitis, 509; and infectious angina, consecutive to intra-nasal operations, 291; case of mycotic, 463; necrotic, 291; treatment of, by bicarbonate of soda, 383
 Tonsils, caseous concretions of the, 69; galvano-cautery in hypertrophied, 351; incisions into, and their indications, 480; lingual, faucial, pharyngeal, the, 161; night terror and screaming in a child, cured by removal of, 291; origin and evolution of the, 100; operation for hypertrophied, 248; on excision of enlarged, 414; primary chancre of, 383; primary carcinoma of the, 70; the surgical treatment of the, 463; the treatment of hypertrophy of the, by ignipuncture, 23; of inflammation of the, 463; when attended by hypertrophy, 352; ulceration of the, 70
 Tornwaldt's disease and the bursa pharyngea, 105
 Trachea, brass shawl pin in for ten days, 431; caseous gland projecting into the, 517; case of formation of true bone in the, 398; extraction of two tracheotomy tubes from the, 78; foreign body in, 115, 172, 300, 432; inhaler for use after tracheotomy, 60; primary tuberculosis

- of the, 261; rupture of the, 301; syphilitic stenosis of the, 45; ulceration of the, and large bronchi, 472
- Tracheal cannula, with Iris-diaphragm, 447; stenosis, produced by enlarged thyroid, 39; tamponning, 37
- Tracheotomy, 36, 253, 474; a case of, for foreign body, 298, 516; fatal bleeding from erosion of innominate artery, 432; how should it be performed? 298; in croup and diphtheria, 18, 508; inopportuneness of aluminium cannulas in, 297; one hundred and twenty-two cases of, for diphtheria, 16; under chloroform, in croup, 18; relative merits of early and late, in chronic diseases, 131, 182; tube worn for thirty-six years, 398
- Tubercular, tumour of nasal mucous membrane, 285; ulcerations treated by camphorated naphthol, 278
- Tuberculosis, of mouth and nose, 480; sulphur waters in, 279
- Turbinated bone, a pathological condition of the middle, 28
- Typhoid followed by measles, parotitis, &c., a case of, 147

U.

- Uremia, Bradshawe lecture on, 147
- Uranoplasty, 68
- Unguentum lanolini, 358
- Uvula, elongation of, and obstinate cough, 23; hæmorrhage after excision of the, 98

V.

- Van Houten's cocoa, 175
- Velum palati, papilloma of the, 347
- Ventricle of Morgagni, hernias of the, 196
- Ventricular band, gummatous infiltration of the right, 439
- Ventriloquy, 253
- Vinolia soap and cream, 311
- Visual area, restriction of the, in nasal diseases, 250
- Vocal apparatus, functional disturbances of the, in puberty, 395
- Vocal bands, histology of polypi of the, 514
- Vocal cord, epithelioma of the, 472; fibroma of the, treated with the galvano-cautery, 253
- Vocal cords, anatomy of the, 77; distribution of the glands on the, 482; hysterical affections of the, 300; microscopical drawings of sections of the, 482; œdema of, in a tubercular patient, 429; sequel to a case of epithelioma of the, 397
- Vocalisation, methods of recovering the movements of, 301
- Voice, affections of the, and slight pathological conditions, and of the nasopharynx, 287; on disturbance of the, 87

W.

- Whooping cough, a method of suppressing the attack of, 454; counter irritation in, 508; therapeutics of, 406; treatment of, 148, 246, 278, 379, 406 (with antipyrin), 278, 279, 454 (with chinine), 246 (by phenacetin), 278; with singular grave central symptoms, 406
- Wry neck, spasmodic, 308

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ON LARYNGO-TRACHEAL OZÆNA.

By DR. LUC Paris.

A WHOLE year has elapsed since I published my first observations on *Laryngo-tracheal Ozæna*. The essay I then published on the subject, and which was based on three cases, appeared in the February number of the *Archives de Laryngologie*. I have been enabled since then to follow the course of the disease on two of the patients whose symptoms had been described in the article alluded to, and, moreover, to observe new cases of the same affection. On the other hand, I was pleased to see my example followed by other practitioners, and I shall have to mention, in the course of this article, the contributions of some of my colleagues on the same subject, some anterior, some subsequent, to my own researches. At all events, I find myself to-day better enabled to take a critical review of the question, and to try to give a pathological description of this affection.

I have thought the subject of laryngo-tracheal ozæna, owing to its novelty, worthy of finding its place in the columns of the JOURNAL OF LARYNGOLOGY.

As already stated in my first essay, I make no claim for priority with regard to the discovery of the disease. B. Fraenkel is, as far as I am aware, the first author who mentioned the presence of fœtid crusts in the larynx and trachea. In fact, he says positively in his book on diseases of the nose:—"I have been treating, for a long time, a lady evidently affected with ozæna, in whom the same greenish and fœtid deposits developed in the nose, are also to be seen in the pharynx and even in the trachea." He alludes further on to the possibility of such crusts becoming formed in the larynx.

I sincerely regretted not to have been aware of the contribution of Professor Massei, of Naples, on the same subject, at the time when I

¹ B. Fraenkel : *Ziemssen's Handbuch der Speciellen Pathologie und Therapie. Diagnostic und Therapie der Krankheiten der Nase*, p. 150.

published my first essay. I most willingly avail myself to-day of the opportunity that is offered to me to make amends for that involuntary omission on my part, and I am happy to record here that, in his remarkable lectures on diseases of the throat,¹ the clever professor of Naples had mentioned the existence of *laryngo-tracheal ozæna*, and noticed some peculiar symptomatic details that had escaped my own observation, viz. : the difficulty of expelling the tracheal crusts that results from their irritating the lower surface of the vocal cords and bringing them spasmodically into contact with one another.

Here is the exact translation of the passage of Professor Massei's lecture on the subject :—"In *laryngo-tracheal ozæna* we meet, on the "mucous membrane, the same lesions as in nasal ozæna, but the exudations generally accumulate under the vocal cords ; the latter form a real "obstacle to their expulsion, and, by coming into contact with each other, "render their expectoration very difficult, as they contract suddenly in "consequence of the irritation caused to their lower surface. You will, "therefore, find a considerable quantity of clotted deposits in the sub-glottic region. Therefrom results a difficulty of breathing, a variety of "asthma similar to that caused by chronic inflammation of the bronchial tubes. *Laryngo-tracheal ozæna* is, however, a very rare localisation of "the disease ; such cases, hitherto, have scarcely been reported and "described. I was enabled myself, two years ago, to show you, in my "private clinic, a case occurring in a pregnant lady who laboured, "especially at night, under severe asthmatic attacks, and relating to "whom it was impossible for me to make further observations. When "the exudations get interposed between the vocal cords, so as to prevent "their being brought into contact, the vocal function may be consequently "impaired, but the hoarseness or aphonia are only intermittent, being "liable to disappear as soon as the morbid products become detached. "You have also to notice the unpleasant smell and the results of the "laryngoscopic inspection showing this special demarcation of the inflamed tissues, which I have produced as an argument in favour of the "parasitic nature of the disease."

It appears from the above quotations that the development of ozæna in the trachea had been noticed and spoken of before the publication of my memoir ; but the fact had only been briefly mentioned, and, so far as I know, no precise observation had been published before mine. I think I may have contributed to a more precise knowledge of the question, by giving the detailed observation of three patients who happened to come under my care, and basing upon those facts an essay of a clinical description of the disease.

I will now shortly record those facts. The first concerned a lady about thirty, who had come to consult me for symptoms apparently due to common ozæna. After I had found the classical signs of that affection (abnormal enlargement of the nasal cavities, atrophy of the inferior turbinated bones, accumulation of greenish, foetid crusts in those cavities and in the upper part of the pharynx), I proceeded to a complete cleaning

¹ B. Massei : *Lezioni Cliniche sulle Malattie della Gola*, p. 202.

out of the nose, with a lukewarm solution of boric acid, by means of the English syringe generally employed in such cases, and ascertained, by a careful examination of the nasal cavities, that they had been thoroughly cleared from all morbid products. I was, however, not a little surprised on remarking that, contrary to what I had hitherto been accustomed to observe in similar circumstances, the unpleasant smell of the breath had not in the least been modified.

Suspecting a few crusts to have remained undetected in some anfractuositities, and so escaped my notice, I advised the patient to repeat the injections herself twice a day at home with a weak solution of sublimate, and asked her to come and see me again in a few days.

On the following visit of the patient, after finding that the bad smell of the breath persisted in spite of a perfect cleaning out of the nasal fossæ, and on the remark of the lady, that she used to cough every morning and expectorate green and fetid crusts, analogous to those expelled through the nose, I proceeded to a careful examination of the chest, and after detecting no abnormal symptoms in the lungs, I proceeded to an inspection of the larynx. In this cavity I found nothing particular, but whilst the patient was breathing freely, I succeeded in seeing, in the interval of the vocal cords, the walls of the trachea studded with greenish crusts, similar to those first observed in the nasal cavities. I further remarked that the fætor of the breath was exactly the same, when the air was expelled through the mouth, as when it passed through the nostrils, which confirmed me in the opinion, that the persistence of the bad smell was to be attributed to the presence of those morbid products in the trachea. In order to get a fuller confirmation on that point, I asked the lady to bring me a small portion of the sputa she used to expectorate every morning, which she did on the following day, and I was then enabled to ascertain the fact that, with regard to appearance and smell, they did not differ in the least from the mucosities and crusts of the nose.

My colleague and friend, Dr. Ledoux-Lebard, who kindly undertook to make an examination of those products, found in them, after colouring them with aniline, besides isolated *cocci* and *bacteriæ* of different sizes, a *diplococcus* similar to the one detected by Læwenberg, and considered by him as the cause of the special fermentation that gives rise to the characteristic smell in ozæna.

I had, therefore, succeeded in determining the cause of that apparent derogation to the generally admitted opinion, according to which the fætor in ozæna emanates from the morbid products of the mucous membrane, but not from that membrane itself. My discovery was even a manifest confirmation of that theory, since it established that those pathological secretions were liable to give rise to fætor wherever they became developed.

I had now to determine whether the crusts observed in the trachea had descended from the hinder part of the nasal cavities or had primarily been developed in the trachea. This I ascertained easily, by keeping the nasal fossæ, by means of daily washings, in a state of uninterrupted cleanliness, and noticing that the crusts accumulated in the trachea varied in quantity from one day to another, according as some of them had been expelled by coughing or others had been formed anew.

In order to relieve the patient from those crusts and from the unpleasant smell, I had recourse to several means (insufflation of iodoform through the larynx during inspiration, and inhalations with different antiseptic solutions); but she did not submit to the proposed treatment so regularly and perseveringly as to enable me to appreciate its efficacy, and in that particular case, I did not succeed a single day in seeing the trachea completely rid of crusts and mucosities; only, when those products were fewer, I noticed that the mucous membrane, visible in their intervals, appeared reddish, swollen, somewhat granular, and that its characteristic ring-streaked disposition was not to be seen as in normal conditions.

A few days after I had succeeded in determining the origin of the fœtor of the breath in the case above described, I had an opportunity of observing a similar fact in a girl of eighteen, who for a short time had been under treatment in my clinic for what I at first merely considered to be simple nasal ozæna. This patient used, according to my advice, to perform daily a complete cleaning out of the nasal fossæ. Notwithstanding, I remarked one morning that, in spite of the perfect cleanliness of these cavities, the expired air emitted the characteristic fœtor of ozæna as well through the mouth as through the nose. I entertained no doubt but that I had again to do with a case of tracheal ozæna, and was confirmed in my suspicion by the laryngoscopic mirror, which enabled me to notice, in the interval between the vocal cords, the mucous membrane red, swollen, and, here and there, covered with yellowish or greenish deposits. I endeavoured this time to try, under my own observation, the effect of the liquid inhalations that had not proved very efficacious in the former case, and for that purpose I had recourse to a solution of thymic acid (4:1000). The very first inhalation gave rise to fits of coughing, soon followed by the expectoration of a great quantity of fœtid sputa, and after a few minutes I had the satisfaction of noticing with the mirror that the trachea had been thoroughly cleared from the crusts, and I ascertained at the same time that the bad smell had totally disappeared.

I have been enabled to attentively follow this patient during this whole year, and to observe that the course of the disease was exactly the same in the nose as in the trachea. Both cavities are easily kept clean and free from disagreeable odour through regular washing and inhaling, but if the inhalations are omitted, only during a few days, the crusts reappear in the trachea exactly as they reappear in the nose after a somewhat prolonged interruption of the irrigation of its cavities. I have been enabled also to notice that the abundance of secretion in both cavities was submitted to certain general influences, increasing, for instance, during the menstrual period or under the influence of transitory fits of dyspepsia.

In the two cases above described it is remarkable that the lesions were limited to the trachea, whereas the larynx remained completely normal and free from pathological secretions. A different course was observed in the third case already published in my first memoir.

It concerned a young man of twenty, who, about thirteen years before, began to show manifest symptoms of nasal ozæna, and three

years later became subject to frequent fits of laryngitis attended with expectoration of fetid greenish crusts very similar to those expelled through the nose. I saw him for the first time on the 6th of January of this year, and, after I had recognised in him, by rhinoscopy, the existence of a typical ozæna, I was induced, by the hoarseness of the voice, to proceed to a laryngoscopic inspection, and noticed the following particulars: the laryngeal cavity was completely free from any morbid secretion, but its mucous membrane presented the appearance of an intense inflammation, offering a very marked redness, especially on the vocal cords. On the false cords were to be noticed hæmorrhagic streaks. The same colouration was distinct on the tracheal mucous membrane, but in this passage it was partially hidden by abundant greenish crusts. I succeeded, in this case, as in the former one, in obtaining a complete cleansing of the trachea, by means of inhalations performed with a solution of thymol, and could ascertain that its mucous membrane appeared red, swollen, and that its ring-streaked appearance was no longer visible.

Following my advice, the patient repeated at home the nasal irrigations and the inhalations, and succeeded in keeping himself from any further factor. I could even ascertain that after a few weeks of a regular continuation of that method of treatment the crusts showed less tendency to form anew, and that the young man could interrupt the inhalations during a few days without the bad smell reappearing.

After the publication of my first essay, based on the three cases just recorded, I had an opportunity of observing at my clinic three other patients affected with the same disease.

One of them, about twenty, presented, besides the classical symptoms of *rhinitis atrophicans*, an intense redness of the mucous membrane of the vocal cords, a marked tumefaction of the arytenoid region, and a few fetid crusts in the trachea.

The second, a girl about twenty-four, began to notice, ten years ago, the first symptoms of nasal ozæna. From the same date she became subject to frequent fits of acute laryngitis, and used to expectorate greenish and fetid crusts.

When I first saw her, about the end of January, I detected a great quantity of fetid secretory products, not only in the nose and in the nasal and buccal portions of the pharynx, but also in the trachea, and even in the laryngeal cavity, where they formed a deposit on the arytenoid region of the mucous membrane. After clearing away all pathological products, I could ascertain that the subjacent mucous membrane appeared red, swollen, and presented the aspect generally observed in chronic inflammations.

My sixth and last case occurred quite recently. I was enabled to observe it in a woman of forty-five, whom I had been treating a few days for symptoms of nasal ozæna. She herself drew my attention to the state of her air passages by complaining of a persistence of the unpleasant smell of her breath, which, she said, she was unable to account for, as she performed the nasal injections prescribed to her with the utmost regularity. On noticing a certain amount of hoarseness, I inquired whether she was particularly subject to laryngitis, to which

she answered affirmatively. I then proceeded to a careful inspection of the larynx, and detected the following details: the vocal cords, instead of their normal uniform whiteness, showed a thin vascularity of their surface; but the chief modifications appeared on the posterior wall, which presented such small warty excrescences (apparently due to limited fibrous hypertrophies) as are commonly met with in people affected with frequent attacks of laryngitis connected with chronic pharyngo-nasal catarrh. Those excrescences were partially covered and hidden by a muco-purulent deposit, which was later on expelled in a fit of coughing. The patient having then been prevailed upon to breathe freely, and without straining, I could see distinctly on the anterior wall of the trachea a greenish crust, the presence of which easily explained the persistence of the fœtor.

In order to complete the list of cases till now published of *laryngo-tracheal ozæna*, I must not omit to point out the fact recently observed by Dr. Tsakyrogboas, of Smyrna, and considered by that author as a case of primary *ozæna laryngis unconnected with ozæna nasalis*.

It was observed, in 1866, in a young lady about nineteen. She had complained for a month of an itching feeling in the throat; she observed at the same time that her breath emitted an unpleasant odour, and that she was liable to expectorate now and then fetid crusts of a brownish colour and foul appearance. This expectoration freed her for a little while from the disagreeable symptoms above mentioned, and even from the hoarseness, which seemed connected with the accumulation of the morbid products in the laryngeal cavity. The laryngoscopic inspection showed the following details: the mucous membrane of the pharynx was pale, the epiglottis and true vocal cords red, as in chronic catarrh, on both faces of the cords, and in the ventricles of Morgagni there was accumulation of brownish masses. The latter having been expelled, the subjacent mucous membrane appeared highly injected, but not ulcerated. Nothing abnormal was found in the trachea, or in the nasal cavities.

This state persisted for about five months, but gave way after continual local and internal treatment, and did not appear anew.

The treatment consisted of inhalations with carbolic acid and resorcin, insufflations of iodoform, and brushing of the laryngeal cavity with glycerine and tincture of iodine. Internally the patient was put under the influence of creosote.

As results from what I have just said, the number of cases of *laryngo-tracheal ozæna* that came under my observation in the course of this last year amounts to six. All my patients were simultaneously affected with nasal *ozæna*, and, as those six cases have been derived from a total of thirty patients presenting symptoms of nasal *ozæna*, I am led to consider the proportion one-fifth as expressing the relative frequency of nasal as compared with *laryngo-tracheal ozæna*. I cannot, consequently, admit Professor Massei's view that *laryngo-tracheal ozæna* is a very rare clinical occurrence.

The silence of authors on the question is not, then, to be accounted for by supposed rarity of the condition. It seems to me more natural to remark that the lesions in *tracheal ozæna*, far from being obvious and

such as to be noticed at once, cannot be detected, except by a careful examination. In short, the greater number of specialists have left this affection hitherto unobserved because they omitted to inspect the tracheas of their patients. My own example will supply the best proof of that interpretation, for whereas, during the first years of my practice, I had not met with a single case of the disease, after my attention had been struck by one fact, well observed, I succeeded in detecting, in the course of the same year, five new examples of the same disorder.

I have not the least doubt that, if my colleagues will also take the trouble to inspect the larynx and trachea of such of their patients as suffer from an unpleasant odour of the breath, which cannot be explained by the presence of lesions of other organs, *laryngo-tracheal ozæna* will soon cease to be a very rare occurrence.

I wrote textually in my former essay :—

"The primary cause of tracheal ozæna seems to be the previous existence of a nasal ozæna—at least, so it was with my patients, whose statements seemed to make it certain that, before they presented the symptoms of foetid tracheitis, they had offered those of *rhinitis atrophicans*.

"It is impossible to foresee whether cases of tracheal ozæna unattended with nasal ozæna will ever be published . . . "

The above-mentioned fact, published by Tsakyrogboas, seems to complete that *desideratum*, but it is my opinion that, before we admit definitively the existence of a *laryngeal* or *tracheal ozæna* independently of nasal ozæna, it is prudent to wait for publication of new facts, in which the microscopic examination of the sputa will have settled that the microbes therein detected were exactly similar to those observed in the crusts of individuals affected with ordinary nasal ozæna. This is, according to my judgment, the only method of deciding the question, for it seems to me that the term *ozæna* ought not to be limited to a special localization, but to a particular fermentation liable to take place in the secretory products of the different portions of the respiratory channels.

Contrary to Tsakyrogboas' facts, in my six observations nasal ozæna co-existed with the tracheal form, and seemed even generally to have preceded it. On the other hand, it is quite certain that the crusts observed in the trachea were not nasal products, having accidentally reached this region, but that, on the contrary, they were products developed on the very spot where they were visible, as follows from my above statements. No doubt the primary infection was derived from the *nasal fossæ*, but, in consequence of this *auto-inoculation*, there had been created a new localization of ozæna—a specific catarrh of the trachea, attended or not with laryngitis of the same nature, and running its course quite independently of the disorder of the nasal cavities.

As regards the absence of crusts generally noticed in the larynges of my patients, this does not allow us to suppose that the latter organ was not implicated in the disease. For instance, in the cases where the laryngeal mucous membrane showed a high degree of redness and tumefaction, it seems logical to admit that foetid products were also secreted in its glandular elements, but that they were immediately

rejected, owing to the special sensitiveness and incessant mobility of this cavity. The trachea, on the contrary, taking into account its extent and the rigidity of its walls, which prevents their opposite points from coming into contact, offers, as regards the question of pathogeny of ozæna, the greatest analogy with the abnormally enlarged nasal cavities of patients labouring under *rhinitis atrophicans*. This would induce us to generalize the conception of ozæna, and to attempt to connect its pathology with that of fœtid bronchitis, attended with enlargement of the aërial passages. In both cases we have to do with a chronic catarrh, the products of which become fœtid, in consequence of their abnormal stagnation in dilated cavities, this dilatation originating in an atrophic degeneration of their walls, brought about by prolonged chronic inflammation. In both cases the fœtor appears to be due to the development of a special fermentation of the secretions of the mucous membrane. The peculiar and *sui generis* fœtor in ozæna leads us to suppose that the fermentation which gives rise to it is caused by a special microbe, and this supposition derives a very strong support from the experiments of Læwenberg, who succeeded in isolating from the nasal crusts of his patients the *diplococcus* already alluded to, the culture of which reproduced the peculiar fœtor of the disease. In accordance with that view, ozæna ought no more to be considered as an affection inseparable from the nasal cavities, but as a specific catarrh attended with the presence of a special ferment, liable to develop on distinct points of the respiratory organs.¹ Therefore, as I already wrote in my former essay: "Let us henceforth speak no longer of *ozæna*, but of *ozænas*; my opinion being that it will now no more suffice to say that a patient is affected with "ozæna in order to point out his pathological condition, but it will be "necessary to add to that term an epithet specifying the exact seat of the "disease (nose, pharynx, larynx, trachea)."

The essential symptom in *tracheal ozæna* consists in the expectoration of fœtid sputa exactly analogous, as regards smell, consistence, and colour, to the products of nasal secretion in *nasal ozæna*. In all cases I observed that expectoration took place either exclusively, or chiefly in the morning, on awakening, a peculiarity that has been equally noticed in patients affected with enlargement of the bronchial tubes, and is easily accounted for by the accumulation of the products of secretion in the diseased organ during sleep. One of the most important characters of the sputa is their viscosity, which causes them to adhere to the tracheal walls and form crusts, in consequence of their becoming dry. In my third case, this tendency of the sputa to form dry deposits on the mucous membrane was chiefly marked during the acute exacerbations of laryngo-tracheitis, and the patient felt more difficulty than ever in getting rid of them. As above mentioned, the sputa exhibited, in all cases, a yellowish or greenish appearance, and emitted the unpleasant odour peculiar to ozæna.

The aspect of the laryngeal cavity was not the same in my different

¹ I have actually observed two patients affected with symptoms of ozæna, and in whom fœtid crusts are only to be found in the upper part of the pharynx, whilst the nasal cavities appear normal in every respect.

patients. It appeared quite normal in my first case, whilst I noticed signs of simple congestion of the vocal cords in the second, and symptoms of catarrh predominating on the arytenoid portion of the mucous membrane, in the cases lastly observed. In one of them (No. 3) I could see distinctly some crusts adhering to the lower surface of the cords, and following their movements. In the two cases which last came under my observation, I was enabled to see, several times, a muco-purulent deposit adhering to the arytenoid mucous membrane. The fits of coughing, excited by those secreting products, were sometimes very severe; but I had never an opportunity of observing such dyspnoic fits, due to their presence, as have been described by Professor Massei in the passage from his lectures already alluded to.

The appearance of the trachea under laryngoscopic examination differs according as the inspection is preceded by the inhalation of a pulverized solution or not. In the latter case, if the patient be put under observation while breathing freely, we notice, through the interval of the cords, the walls of the trachea studded with yellowish or greenish deposits, so confluent sometimes as to completely hide the mucous membrane; in other cases, on the contrary, thinly scattered. If, on the other hand, the crusts have been expelled by means of protracted inhalation, we get a view of the mucous membrane, which appears either simply congested or granular, and so swollen and thickened as to hide the ring-streaked appearance due to the subjacent cartilaginous rings.

The prolonged observation of my patients has led me to the conclusion that the disease, if left to itself, shows no tendency to spontaneous cure. In fact, it is possible to conceal it by means of liquid inhalations, performed with perseverance and regularity; but the cessation of that mode of treatment is followed by a rapid reappearance of the crusts in the trachea, exactly as they form anew in the nasal cavities so soon as the nasal injections are suspended. On the other hand, I have noticed that (as has been observed in nasal *ozæna*, under influence of regular cleansing) after a protracted use of inhalations, the tracheal mucous membrane, being daily kept free from its pathological products, showed less tendency to abnormal secretion, and that the severity of the treatment might be somewhat relaxed.

I need not further mention some special conditions, such as dyspepsia, fatigue, menses, which are liable to increase at times the abundance and bad odour of the tracheal secretions.

The diagnosis of *tracheal ozæna* is to be founded on a group of signs, some of which can only lead us to suspicions or probabilities, whereas others are such as to afford us a complete certainty.

We shall be induced to *suspect* the existence of a fetid tracheitis, on noticing a persistent foetor of the breath in a patient affected with nasal *ozæna*, after a complete cleansing of the naso-pharyngeal cavities.

Such a diagnosis will become *probable* if, on one hand, the air is as foetid expired through the mouth as through the nose; and if, on the other hand, the patient expectorates foetid sputa. But the diagnosis can only become *certain* after a laryngoscopic examination, enabling us to see the walls of the trachea covered with crusts.

The lesions, will, so to speak, be put before the eyes of the observer, who will therefore avoid being led into error either by a fœtid abscess of a nasal sinus, or by the emission through the mouth of a fœtid crust originally formed in the naso-pharyngeal cavity.

It is, then, impossible to allow a case of *tracheal ozæna* to escape unnoticed, unless we omit to search for it, or in cases in which we meet with special and personal difficulties in attempting to inspect the laryngo-tracheal cavity with the help of the mirror. Such difficulties are, however, now hardly to be taken into account since the introduction of cocaine to laryngology.

Laryngo-tracheal ozæna is a serious complication of nasal ozæna. In fact, whereas the patient simply affected with the latter form is sure to find a complete relief from his unpleasant symptoms, and to become enabled to conceal them by means of such a simple and easily performable mode of treatment as nasal injections, people labouring under *tracheal* or *laryngo-tracheal ozæna* can but obtain the same result by having recourse to inhalations, a much slower and more difficult proceeding, the effects of which are far more uncertain. If, in addition to this, we take into account the frequent fits of coughing, sometimes attended with impairment of the respiratory function, we are led to the conclusion that the prognosis of ozæna is severely aggravated by the extension of the disease to the larynx and trachea.

If the affection I have attempted to describe were limited to the laryngeal cavity, as was the case in the observation reported by Tsakyrogboas, it would remain within the reach of our direct means of treatment, and we could hope to be able to free the diseased cavity rapidly from its fœtid products, and furthermore to modify the anatomical conditions of its mucous membrane through such local procedures as brushing or even *cleansing*, as has been recently proposed by Loewe, of Berlin. Unhappily such means, so easily applicable to parts seated above the glottis, are not to be thought of for lesions of the subglottic part of the larynx and of the trachea, owing to the obstacle opposed to the penetration of our instruments by the spasmodic contraction of the vocal cords.

In order to surmount that difficulty, and with the prospect of cleaning the tracheal cavity from the fœtid crusts, and, at the same time, in the hope of modifying the conditions of the diseased mucous membrane, I had tried different means, such as inhalations performed either with simple steam or with pulverized antiseptic solutions. I also attempted, according to Baratoux's proposal, to inject a few drops of a lukewarm solution of boric acid directly into the trachea with the help of a little syringe provided with a curved cannula. I tried simultaneously the effect of insufflations of antiseptic powders. This last means proved inefficacious in all cases. I cannot say the same with regard to the injection of a liquid solution performed according to Baratoux's proceeding. It certainly succeeds in determining a softening of the crusts, and gives rise to severe fits of coughing, which may end with the expectoration of the fœtid sputa; but its action is not protracted enough, and is hardly tolerated by the patients, who generally oppose its renewal.

My experience has definitely led me to give the preference to the

system of inhalations above all others. They act slowly, but so much the more efficaciously, and are not unpleasant for the patients.

To poor people the use of simple steam may be prescribed for the object aimed at, but beyond those special conditions I would much rather recommend the use of an inhaling apparatus, by means of which not the steam but the liquid solution itself, finely pulverized, is aspired into the air passages.

The composition of the solution may be varied according to particular circumstances. For my own part I derived much benefit from the use of thymol, but I consider the penetration of whatever pulverised solution into the trachea as the chief point of the method, and firmly believe that regularity and perseverance in the performance of the treatment are far more important than the chemical composition of the adopted solution.

CLINICAL NOTES.

By B. TAUBER, M.D. (Denver, Colo.).

Tuberculosis of the Pharynx.¹

OUT of a total of 6500 laryngeal and pharyngeal patients, 13 cases of the above disease came under my care for treatment—namely 6 from Ohio, 2 from Kentucky, 2 from Indiana, 1 from Illinois, 1 from New York, and 1 from Colorado, an average of 2 in each 1000 of cases.

This subject has been discussed by Isambert, Fraenkel, and others. Tuberculosis of the pharynx generally presents itself as a complication, either of tuberculosis of the lungs, larynx, or of both, rarely preceding them. Twelve cases were secondary manifestations of tuberculosis of the lungs and larynx, and in *one case* it appeared to be *primary*, as on close examination of both lungs I could not detect pulmonary consolidation or softening.

The etiology of tubercular pharyngitis is the same as that of phthisis pulmonalis, and is referred to heredity, the depression of vital powers, breathing of impure air, a residence in a moist and cold climate, or insufficient nutriment. Males are more predisposed to it than females, and this may be due to the greater degree of exposure the former are subjected to. As regards age, the majority were between 20 and 32 years of age.

Pharyngoscopically we observe greyish and shallow-looking ulcers on the anterior folds of the pharynx and soft palate, spreading to the roof of the mouth, to the posterior wall, the velum palati, and to the tonsils, and at an advanced stage also on the epiglottis and larynx, and if the latter are implicated, in most cases the disease also spreads to the upper part of the larynx. These greyish granulations are lenticular in shape; rapidly they disintegrate, become yellowish in colour, and cause necrosis of the mucous membrane; at the same time the cervical glands become enlarged. As the disease progresses the granulations become confluent, and are gene-

¹ Read before the Colorado State Medical Society.

12 *The Journal of Laryngology and Rhinology.*

rally grouped in patches of irregular configuration, they increase in number, and are transformed into cheesy nodules covered with purulent matter.

The cardinal symptoms are dysphagia, and the great pain usually extends to both ears; the patient is also greatly annoyed with accumulation of mucus, which he is unable to expectorate. The minor symptoms are cough, hectic and progressive debility.

The pulmonary symptoms manifest themselves generally at an advanced stage of the lesion of the throat, and finally death ensues from exhaustion. The ulcerative process extends very rapidly, generally six or eight weeks, and creates enough local disturbance to render alimentation by the mouth impossible, especially if the soft palate is affected. Liquids are then forced into the nose.

From four to six months of a mere existence is generally allotted to the patient, while in the majority death occurs in from six to twelve weeks after the first local manifestation of symptoms in the pharynx.

We may confound this disease with scrofulous and syphilitic pharyngitis. The history of the individual case, and the fact that the *pharyngeal symptoms attract the patient's first attention*, are very valuable hints to take into consideration; further the lenticular ulcers with the development of grey nodules are very characteristic diagnostic signs.

The results, rather *benefits*, local and constitutional, are very unsatisfactory. The only palliative local remedy we can employ is to spray the pharynx and surrounding parts with a 10 per cent. or 20 per cent. solution of cocaine, several times a day, having cleansed the pharynx previously with an alkaline solution. The patient is afterwards very soon enabled to take nourishment with little inconvenience in swallowing.

We all know that the effects of cocaine are of short duration, in such cases long enough for our purpose to let the patient take his meals. I also insufflate the pharynx and surrounding parts with morphine and iodol twice a day, morning and evening, to keep the patient comfortable during the day and night. When deglutition becomes impossible, we must feed the patient by the rectum, or by means of a feeding bottle.

Twelve cases were treated during the last stage of the disease, and died in from ten to fourteen weeks, the one primary case succumbed after six months, and the autopsy and microscopical examination confirmed the diagnosis. In conclusion, I call the attention of the profession in making laryngoscopic examinations, also to give great importance to the condition of the pharynx. By detecting such a condition in time, we may be enabled to prolong the patient's life by treating the pharynx energetically. For this purpose I recommend lactic acid, chromic acid, thymol, and the galvano-cautery, having previously and afterwards applied a 10 per cent. or 20 per cent. solution of cocaine to the parts.

Enlargements of the Submaxillary and Cervical Glands in the Neck.

A YOUNG lady (blonde) twenty years old, and of strumous diathesis, had been affected with enlarged glands in the neck from childhood. Local and constitutional remedies were given to counteract the strumous taint, still the glandular enlargement did not yield to treatment. This case

was referred to me by the eminent surgeon, the late Professor Mussey, of Cincinnati, Ohio, and I suggested the application of electrolysis. The patient and her adviser consented to the proposed mode of treatment.

On examining the pharynx nothing abnormal was seen, except a chronic hypertrophy of both tonsils. Laryngoscopically, the entire larynx appeared to be normal in every respect.

In order to reduce the glandular swelling I used a 20-cell galvanic battery, attaching to it two gold needles, and, introducing on each side of the neck (having previously anaesthetized the parts with an ether spray) one positive and one negative needle, I allowed both to remain *in situ* for five minutes at a sitting. Once a week I introduced the needles to the various parts of the neck, and after twenty-two sittings I was highly gratified with the excellent results obtained; all the enlarged glands were absorbed, and became normal, and the entrance of the needles only left a slight mark. I report this case after a lapse of twelve years. Two years ago I examined the patient, and could not detect a trace of recurrence: she, moreover, enjoys the best of health.

Angioma of the Epiglottis.

A MERCHANT, forty-two years old, complained for several years of impediment in deglutition, defect in speech and articulation, with shortness of breath, and an excessive discharge from the throat and nares, otherwise his general health seemed to be good. Living in the rural districts of Kentucky he was treated for two years for a catarrhal affection with no good results.

On depressing the tongue I could see on the dorsal surface of the epiglottis a smooth, shining, bluish-red growth, and on a laryngoscopic examination (which was very difficult to make on account of the presence of the neoplasm), I noticed the entire dorsal part of the epiglottis covered with the growth, which measured one and a quarter inches in length and one inch in width, overlapping the epiglottis anteriorly. The interior of the larynx was not implicated to a great extent, there being a chronic laryngitis present, which, however, was of minor importance.

To remove this growth the galvano-cautery loop would suggest itself to be the proper instrument to select. The position of the growth, especially anteriorly, was such that it was very difficult to encircle the entire growth in the loop. I concluded to employ the largest size of Mathieu's tonsillotome and cut it off in one movement, and to burn the residue, if any, with the galvano-cautery. This was done with little pain to the patient, the hæmorrhage was very slight and the cut-surface looked very smooth and even in every part where the growth was attached, so that after-treatment was hardly necessary. The patient left for home a few days after the operation, and all the above-mentioned symptoms disappeared *in toto*. On microscopical examination it proved to be angioma. Eight years have since passed with no recurrence of the neoplasm.

THERAPEUTICS AND DIPHTHERIA, &c.

KUTTNER (Berlin).—**Universal Galvano-Caustic Handle.** *Berl. Klin. Wochens.*, No. 38, 1888.

NOTHING new.

Michael.

BROICH (Hanover).—**A Zinc Platinum Battery.** *Monats. für Ohrenheilk.*, Nov. 10, 1888.

THIS is a modification of Voltolini's Battery.

Michael.

VOLTOLINI (Breslau).—**The Illumination of the Larynx and other cavities of the human body.** *Bresl. Aerth. Zeitschr.*, No. 22, 1888.

THE author recommends Edison's lamp. If the reflection of the lamp is allowed to fall upon the neck it is possible to see the larynx with the laryngoscope in red colour. In this manner it would be possible to determine whether a neoplasm extended to the deeper tissues, and to discriminate between malignant and benign tumours. It can also be used for physiological researches. The incandescent lamps can further be used for illumination of the nose, and can be introduced into the nasopharynx. In one case the author succeeded in illuminating the antrum of Highmore.

Michael.

SCHMALTZ.—**The Therapeutics of the Upper Air Passages.** *Jahrs der Gesellsch. für Natur. und Heilkunde zu Dresden*, 1887-88.

A GOOD review of the methods known up to the present.

Michael.

GAUTIER.—**On Chronic Iodism.** (*Soc. Méd. de Genève.*) *Rev. Méd. de la Suisse Rom.*, 20 March, 1888.

THE author related two cases, one in a young girl of sixteen, the other in a woman of fifty-five, whose family presented a history of insanity. In this case the iodism was caused by frictions of iodide of potassium which had been applied to a cyst of the thyroid region. Enfeeblement had become great, and four months after the commencement of iodism, melancholia supervened, which had persisted. Gautier possessed a number of observations relating to acute and chronic iodism. In the discussion which followed, *d'Espine* thought that neuropathy was sufficient to explain the condition without the intervention of iodism. The cases described by Gautier were very like what English physicians have called anorexia. *Gautier* remarked that neuropathic patients were prone to iodism, and anorexia may be caused by iodism. The quantity of iodine administered is of importance in acute intoxication, but not in relation to chronic iodism. The amelioration of the general state in syphilis is not due to the iodine itself, but to its favourable action on a malady which depresses the organism. *Reveilliod* remarked that in many neuropathic disorders, enfeeblement occurred without iodine being administered. Exophthalmic goitre presented many analogies with iodism. He had never seen the effects described by Gautier. *Gautier* recognized the intimate relations between

constitutional iodism and such neuroses as exophthalmic goitre, but generally the distinction was easily made. *Heltenhoff* was struck with the resemblance of chronic iodism to exophthalmic goitre, which, moreover, was much aggravated by the employment of iodine. *Goetz* agreed with d'Espine, and thought great account should be taken in these observations of hysteria and neuropathy.

R. Norris Wolfenden.

RAFIN (Lyons).—Lactic Acid in Tuberculous Ulcerations and Lupus.

Lyons Med., July 8, 1888, and Boston Med. and Surg. Journal, Oct. 25, 1888.

THE treatment of tuberculous ulceration of the skin and mucous membranes by lactic acid has been advocated by Moseitig, and his favourable conclusions have been tested by M. Rafin, consulting surgeon to the General Hospital of Lyons. He employed it first in two cases of tuberculous ulcer of the tongue, in which the diagnosis seemed very plain. Both patients were middle-aged men, of regular habits, with no sign or history of syphilis. The first (Antoine F.) was treated for a while with potassium iodide as a tentative measure to make the diagnosis more certain. No relief followed. One leg had been amputated for tuberculous disease of the knee; the tuberculous symptoms of the lungs were far advanced. The ulcer on the tongue was about the size of a shilling, with rough edges, and no induration. After the trial of potassium iodide the patient was put upon large doses of cod-liver oil, with a little liquor arsenicalis. The ulcer was painted twice a day with an eighty per cent. solution of lactic acid. The improvement was not very rapid, but was continuous, and in six weeks the ulcer was completely healed. The patient died six months later of pulmonary phthisis, but the healthy scar tissue did not break down. The second case was rather less severe, with less general tuberculosis. Under the same treatment the ulcer healed completely in six weeks.

The first case of tuberculous lupus was in a girl (Marie B.) of sixteen, of scrofulous temperament, who had much glandular swelling and blepharitis. The lupus affected the tip of the nose and both *alae nasi*. No tuberculosis of the internal organs was recognised. Local treatment by an eighty per cent. solution of lactic acid was followed after two months by complete recovery. The second case was in a man of twenty-one, in whom the nose had been affected since he was thirteen. There was no tuberculous history or further tuberculous symptoms. He was treated with cod-liver oil and arsenic, and locally with the same solution of lactic acid. The recovery was slow, but steady; and after six months it was admitted to be complete after a careful examination before the Medical Society of Lyons.

In considering other cases of successful treatment of tuberculous ulcer of the tongue, one case of cure by chromic acid (Verneuil) is found, one by cupric nitrate (Flemming), two by iodoform (Fournier), others by salicylic acid. In tuberculous lupus the treatment adopted has been very various, but the methods that have met with any success have been electrolysis, scarification, and the application of some destructive substances. Moseitig claimed for lactic acid that it destroyed morbid but not healthy tissues. This M. Rafin is inclined to admit from his own observations.

The base of the ulcers slowly detached itself, the caseous portions disappeared, and then granulated healthily, the fresh tissue growing from their edges. The progress was not rapid, but successful in all the four cases in which it was used. Of its special action on the tubercle bacillus M. Rafin professes no knowledge.

R. Norris Wolfenden.

VIGIER.—A Powder for Coryza. *Therap. Gaz., February, 1888, and National Druggist, Jan., 1888.*

R. Finely powdered starch	}	Equal parts.
Boracic acid		
Tincture of Siam benzoin		

To be used as snuff, frequently and plentifully.

THE *National Druggist* remarks that powdered gum benzoin should not be used to replace the tincture, as the resulting powder is tenacious, packs easily, and is difficult to draw into the nostrils. It is better to use the tincture, and allow the alcohol to evaporate. A granular powder results which has not the vices referred to.

R. Norris Wolfenden.

NIESEL (Greifswald).—On application of Camphoric Acid for Catarrhs of Mucous Membranes. *Deutsch. Med. Wochens., No. 40, 1888.*

THE author recommends this method.

Michael.

ENGLEMANN (Kreuznach).—Researches upon the Antiseptic Effects of the Medicaments used in Diphtheria. *Deutsch. Med. Woch., No. 46, 1888.*

THE author has experimented upon a large number of the drugs commonly employed in diphtheria. He concludes that only those preparations well known in surgery to be strong antiseptics have any efficacy in diphtheria, but most of these cannot be employed on account of their toxic power. Acetic acid can, however, be recommended as both safe and efficacious.

Michael.

BRYHN, L. G. (Norway).—Diphtheria under different Forms. *Norsk Magazin for Laegevidenskaben, May, 1888.*

A SHORT description of a few cases of gangrenous erysipelas of the skin occurring in some patients during an epidemic of diphtheria.

Holger Mygind.

KAHRS, C. (Norway).—One Hundred and Twenty-two Cases of Tracheotomy for Diphtheria. *Norsk Magazin for Laegevidenskaben, June, 1888.*

DURING an epidemic of diphtheria in the town of Bergen, 1884-85, the author performed tracheotomy in 122 cases with the following result:—

Age—Under 1 year..... 0 recoveries..... 3 deaths..... 3 total..... 0 recovery per cent.									
" 1 to 2 years	4	"	9	"	13	"	31	"	"
" 2 to 3 "	7	"	15	"	22	"	32	"	"
" 3 to 4 "	9	"	11	"	20	"	45	"	"
" 4 to 6 "	13	"	13	"	31	"	42	"	"
" 6 to 8 "	5	"	9	"	14	"	36	"	"
" 8 to 12 "	8	"	5	"	13	"	61	"	5
" Over 12 "	1	"	5	"	6	"	17	"	"
Total.....	47		75		122		385		

Holger Mygind.

DEICHLER (Frankfurt).—**The origin of Diphtheritic Infection.** *Deutsch. Medicinal Ztg.*, No. 94, 1888.

THE author feels convinced by Hebner's researches, that the production of diphtheritic membranes does not require the hypothesis of micro-organisms, but that all the symptoms may be caused by chemical products.

Michael.

MERCIER, L.—**Epidemic of Pseudo-membranous Angina observed at Coppet in the months of August and September, 1882, with two cases of Croup.** *Rev. Méd. de la Suisse Rom.*, 20 March, 1888.

FIVE cases of pseudo-membranous angina occupied houses near together, but not adjoining. Two cases of severe croup, one evidently pseudo-membranous, the other preceded by a catarrhal state, which had lasted eight days, and which seemed to have disappeared, when symptoms of severe croup supervened, and tracheotomy had to be performed for urgent dyspnoea. False membranes were not observed in this case. At the same time occurred a case of croupal cough without gravity, a case of gastric febrile attack in a child and another in an adult. The epidemic was a circumscribed one of diphtheria, or of catarrhal fever with pseudo-membranous manifestation, which was located in five cases on the tonsils and the palatine arches, and in two cases was manifested by sudden attack of the larynx without previous specific angina. The author notes the good effect of emetics frequently employed in all the cases, and swabbing with citron juice, especially in the case of croup, which was cured without operation.

R. Norris Wolfenden.

LOVE, I. N. (St. Louis).—**Are Membranous Croup and Diphtheria identical?** *Medical Times*, 15 September, 1888.

THE author is of opinion that they are identical. Diphtheria usually commences in the pharynx, and particularly in the tonsils. There is frequently a break in their protective covering, or they are vulnerable from previous inflammatory conditions. Purulent epithelium is more susceptible to attack than ciliary. In the larynx besides ciliated epithelium there is free exosmosis from the mucous glands antagonizing absorption. In laryngeal and tracheal diphtheria Bowman's membrane forms an obstacle to absorption. Nasal diphtheria is dangerous because the opposite condition exists. The absence of albuminuria in croup is explained by the mild constitutional symptoms, if the larynx be attacked, and the large mortality preventing fair comparison and complete determination of the presence or absence of albumen. The same argument applies to subsequent paralysis. The argument of suddenness of the attack and period of incubation is met by the statement that examinations of the nose and pharynx are frequently insufficient, and the mild prodromata which would occur in primary laryngeal and tracheal diphtheria would probably be overlooked. The mortality records show an enormous increase of deaths from croup (?) during an epidemic of diphtheria. The classical treatment for croup has for years been free exhibition of mild chloride (coupled with stimulation) with a view to its

defibrinating effect. The same plan of treatment has been applied to diphtheria with good effect.

R. Norris Wolfenden.

GAUCHER.—*The Treatment of Diphtheria by Antiseptic Cauterisations.* *Gaz. des Hôp.*, 15th November, 1888.

THE method consists in ablating the false membranes, and cauterising the subjacent mucous membrane. He relates 17 cases of grave anginas all cured by these measures. Dubousquet-Laborderie added 81 cases of diphtheritic angina observed in four years, and in which he had applied carbolic cauterisations vigorously. Four cases died from croup (mortality of 5 per cent.). All the cases treated before there was extension of false membrane to the larynx were cured. Not a single adult has died, and no child above five years of age.

There is no inflammatory reaction or pain in deglutition, or phenic intoxication, although the black colour of the urine showed that the treatment was general.

Gaucher employs a solution of 5 to 10 grammes of crystallised phenic acid in 10 grammes of alcohol, adding 70 centigrammes of tartaric acid to make it aseptic. After removing the false membranes by a brush, the carbolic acid is swabbed on the mucous membrane, and the operation is repeated three times a day. The mouth is also rinsed out every two hours with a weak carbolic solution.

R. Norris Wolfenden.

LOREY (Frankfurt).—*The Treatment of Diphtheria with Pulverised Sugar.* *Deutsch. Med. Woch.*, No. 46, 1888.

THE author has applied pulverised sugar in several cases of diphtheria, and is well content with the results.

Michael.

LUC.—*Tracheotomy under Chloroform in a case of Croup.*—*Cure.* *Jour. de Méd.* 24 June, 1888.

THE diagnosis of the affection which occurred in a little child 5½ years old was very difficult; laryngoscopic examination, however, showed in the clearest way the laryngeal cavity completely covered with false membranes. Tracheotomy was performed under chloroform, and the child recovered. The author no longer employs the procedure of St. Germain (plunging at once into the trachea), for this operation is done blindly, and the patient might asphyxiate from penetration of blood into the trachea, or from forced extension of the head. Chloroform, far from increasing dyspnoea, calms it, and makes the respirations regular.

Joal.

JENNY.—*Tracheotomy in Croup and Diphtheria.* *Inaugural Dissertation, Basel*, 1888.

A REPORT on 214 cases operated on in Münsterlingen during 1873-86, 95, or 44 per cent. were cured, and 119, or 56 per cent. died. In 189 cases, or 88 per cent., diphtheria was the cause of the stenosis. High and low tracheotomy gave the same results. If membranes were coughed out after the operation the prognosis was not so good. The fact of respiration being free after the operation is also of great prognostic value. All the cases (55) in which it was not free during the first 24 hours died.

Three cases of granulation stenosis were observed. Four children died during the operation. It must be admitted that the results obtained at this hospital are very favourable.

Michael.

FLESCH (Frankfurt).—**A case of Diphtheritic Paralysis.** *Munch. Med. Woch.*, No. 48, 1888.

A CASE in which paralysis of the soft palate followed upon a case of slight diphtheria.

Michael.

DUCLOS.—**The Difficulties of differential diagnosis between Pharyngeal Diphtheria and Herpetic Angina.** *Rev. Clin. et Thé.* 25 Oct., 1888.

IN many cases there is difficulty in making diagnosis. Diphtheria, however, usually develops insidiously, herpetic angina commences with burning fever and general symptoms. An important sign is also furnished by examination of the nasal fossæ. In a great number of cases of diphtheria the disease commences in the nose. A capital symptom is the presence of submastoid and cervical adenitis, which is characteristic of diphtheria. In herpetic angina it is the submaxillary glands which are tumefied.

Joal.

SILESE (Berlin).—**Apoplexy after Whooping Cough with Transitory Hemianopsia.** *Berl. Klin., Wochens.*, No. 42, 1888.

DURING whooping cough, which was treated with morphine in a child two years old, unilateral paralysis and hemianopsia occurred. A cure was effected in three months.

Michael.

MOUTH, TONSILS, PHARYNX, ŒSOPHAGUS, &c.

ESCHERICH (München).—**On the Suction of the Newborn.** *Munch. Med. Wochens.*, No. 41, 1888.

THE first efforts at suction are produced by synchronous motion of the lower jaw and the tongue. By depressing this, the air is rarefied in the mouth. The gingival membrane and compression act supplementarily.

Michael.

DU MESNIL (Wurzburg).—**A Case of Erythema Nodosum.** *Munch. Med. Woch.*, No. 46, 1888.

IN the case of a young woman, twenty-five years of age, observed by the author, erythematous infiltrations were found on the lips, tongue, soft palate, and laryngeal mucous membrane. The disease lasted for a month before cure was effected.

Michael.

LANNOIS (Lyons).—**Black Tongue.** *Ann. des Mal. du Larynx, &c.*, Nov., 1888.

THE author gives a bibliographical summary and relates some original cases. He thinks that it is not often met with, not because it is rare but because it is an indolent affection, giving rise commonly only to a little dryness of the throat, and the condition affecting only the posterior portions of the tongue is discovered only by accident. The first case related by the author occurred in a young girl with Pot's disease. She had a patch of the size of a five franc piece situated in front of the lingual V, and extending to the anterior third of the tongue. It occupied both sides, but was most extensive on the left side. The colouration was due to hypertrophied and pigmented papilla. The second case occurred in an old tabetic patient, and the black patch occupied the base of the tongue, and was about the size of a five franc piece. The third case occurred in a man of 62, who had dysentery. He complained of dry mouth, and had a dirty brown patch exactly on the median line of the tongue. The author remarks in conclusion that black tongue is caused by production of long papillary filaments, having a uniform colouration in all their extent, but varying from brown to brownish black. These filaments are normal lingual papilla covered with hardened epithelial cells. The filament is completely covered with a sheath, which contains abundant spores. The clinical symptoms are very slight, being little more than dryness of the mouth and throat. An affection of local nutrition may prepare the way for the development of a bacillus, which is the determining cause of the papillary hypertrophy and the pigmentation. Treatment consists in scarification and application of strongly alkaline lotions. [In the discussion on this paper at the Société des Sciences Médicales de Lyon, MM. Horand and Weil remarked that the black tongue is frequently developed in diabetics.]

R. Norris Wolfenden.

TRÉLAT.—**Epithelioma of the Tongue, Tonsil, &c.** *Gaz. des Hôp.* 25 Oct., 1888.

IN a lecture delivered at the Hôpital de la Charité, Trélat remarked that in cases of deep lingual epithelioma it is necessary to avoid operation. Of thirteen patients latterly operated upon there have been four rapid deaths—two immediately after the operation, and two others on the third day from syncope or asphyxia. Patients do not, as a rule, succumb with such rapidity, except in the case of excessive hæmorrhage, and death oftener supervenes upon phlegmon of the mediastinum, general septicæmia, or septic pneumonia.

Joa¹.

PONCET.—**Tumours of the Submaxillary Gland.** *Gaz. des Hôp.* 14 August, 1888.

SUCH tumours appear to be very rare, judging from the small number of observations published in surgical literature. The recent thesis of Jouillard on Cancer of the Submaxillary Gland records only nine cases—three carcinomas, three sarcomas, three epitheliomas. A case of lympho-sarcoma is noted by Delorme. Benign tumours are not more frequent :

cases of adeno-chondroma, enchondroma, myxoma, and true adenoma have been recorded. Poncet has seen two cases, one adeno-chondroma of the left submaxillary gland in a man aged 35, which was successfully removed, with cure. Histologically, it showed some suspicious evidences of malignancy according with the clinical history of rapid growth suddenly taken, on which it had already lasted seven years. Twenty-six months after the operation there has, however, been no recurrence.

A case is cited of Mollière's of typical enchondroma of the submaxillary gland (confirmed microscopically). Six months after removal there was a recurrence of a quite inoperable tumour. It is difficult to say whether there was transition of a benign into a malignant tumour or not. A case of Poncet's is also referred to, in which a slow-growing enchondroma of the parotid was operated upon. Some time after (about two years) signs of a tumour at the base of the cranium were undoubted, in the post-orbital region of the same side on which was the previous tumour. Prengreuber also treated a tumour of the submaxillary gland clinically considered to be benign, but which histological examination showed to be an epithelioma of the excretory ducts of the gland. Wölfler has recorded a case of pure adenoma which recurred twice after successive removals. The second case of Poncet's was an adenoma of the right submaxillary gland. It was a hard enlargement which had existed for eight years, and had suddenly, rapidly increased in volume.

The diagnosis of tumours of this gland is not difficult. Talazac's proposal to introduce a probe into Wharton's duct, and observe if it moved with movements of the gland, is not favourably regarded by the author, since the effect may be produced by any tumour of this region. A very important sign is the mobility of the tumour, differentiating it at once from a glandular lympho-sarcoma.

Benign tumours of this gland present the following characters:—An elongated tumour occupying the submaxillary space, generally ovoid, or like an egg or small mandarin in volume. Hard consistence, slow growth (many years), absence of pain, of glandular enlargement, or affection of health. Salivation is sometimes a symptom; mechanical interference with mastication is sometimes present. Differential diagnosis has to be made from lympho-sarcoma (where large glands are met with in the neck), chronic adenitis (commences acutely), tubercular adenitis (in scrofulous subjects), cysts by blocking of Wharton's duct (have acute origin, and the examination of the floor of the mouth distinguishes the two), lipoma (would be soft, lobulated, and superficial), and secondary invasion of the gland from neighbouring epitheliomas. The tumours are undoubtedly glandular in their origin. The only treatment is operative. The dangers of extirpation of the gland are exaggerated, and in all cases of benign neoplasm success has followed the operation.

Jeal.

REVERDIN and A. MAYOR (Geneva).—**Branchiogenic Pavement-lobulated Epithelioma. Extirpation.—Recurrence.—Death.** *Rev. Méd. de la Suisse Rom.*, 20 March, 1888.

A MAN, sixty years old, perceived in 1885 a hard lump the size of a pea, in the submaxillary region on the left side. It gave rise to no trouble. It

increased in size, and then grew rapidly, giving rise to much pain radiating to the left temple. The tumour was then found to be hard at the periphery, fluctuating in the centre. It was fixed against the side of the maxilla. At one side of the tumour a very hard gland was incorporated with it; the mass was painful on pressure. The floor of the mouth was raised on the left side by a hard mass corresponding with the external tumour. There was no enlarged gland in the neck. An exploratory incision let out a quantity of sero-sanguinolent liquid with yellowish flakes which proved, microscopically, to be epitheliomatous. The operation for its removal was succeeded by recurrence and extension of the disease, and the death of the patient. The tumour appears to have belonged to the class of branchiogenic or branchial carcinomas described by Volkmann, of which this case makes only the tenth. These tumours have only been met with in males, and at a relatively advanced age (one of Silcock's cases was 32 years old). In all cases except one, the tumour appeared at first as a hard lump, sometimes painful, in some part of the neck, which rapidly develops, invades a great extent of the neck, and advances to the buccal or pharyngeal mucous membrane, altering the general health. In its growth the tumour generally becomes fluctuating, and, on incision, allows pus sometimes, fetid or yellow sanguinolent fluid with epidermic masses, to exude. Any attempt at extirpation shows the tumour to extend far and invade the muscles—to adhere to the great vessels, and operation has to be incomplete, or, if completed, the patient succumbs to hæmorrhage from ulceration of a large vessel, etc., or recurrence. The seat of these tumours is usually in the superior region of the neck, immediately below the lower jaw and floor of the mouth, or a little lower between the larynx, hyoid bone, and great vessels, or at the level of the bifurcation of the carotid; they are rarely developed in the lower part of the cervical region. These different regions are precisely where branchial cysts appear, *i.e.*, in the superior triangle, in front and under the angle of the jaw; at the level of the middle of the thyroid cartilage; between this cartilage and the anterior border of the sterno-mastoid; and lastly, in the region of the sterno-clavicular articulation, and the supra-clavicular fossa. In the author's case, the tumour was situated in the region corresponding to the second branchial cleft.

The tumours are generally fluctuating in the most prominent portion, though in two cases of Volkmann's they appear to have been solid. Both the formation of a cavity and the solid parts grow rapidly, and then pain commences, and neighbouring organs may be compressed. In one case of Volkmann's, the larynx was extensively separated from the great vessels, and the tumour had extended to the base of the cranium, causing pain in respiration and on deglutition. The muscles or great vessels are liable to invasion. As a rule the mouth and pharynx are not invaded. Lymphatic glands are not degenerated. Surgical intervention is difficult, dangerous, or impossible. Three times complete extirpation has been attempted, but the patients have speedily succumbed to hæmorrhage or recurrence.

A complete account of the histological examination of the tumour is

given by Dr. Mayor, who concludes that the only possible origin was in a retrograde anomaly of the second branchial cleft. R. Norris Wolfenden.

EGIDI, F.—Elongation of the Uvula and obstinate Cough. *Archivii Italiani di Laringol.*, October, 1888.

THE author examines the different causes which tend to elongate the uvula, and the consequences of the same, and particularly insists upon the presence of a sort of nervous cough, which is both very frequent and troublesome and obstinate, and the real causation of which may be overlooked. He relates some cases in which cough had been present for some long time, and in which various methods of treatment had been unsuccessful, and which were quickly cured by the slight operation of cutting with scissors. Massei.

CLARKE, E. W. (New York).—Ligation of a Tonsil for Hæmorrhage. *New York Med. Jour.*, July 7, 1888.

THE case of a male nurse, aged twenty-two, in whom a portion of both tonsils was excised with a volsella and angular scissors. Immediate hæmorrhage was moderate and soon stopped, but an hour later free hæmorrhage commenced from the left tonsil, which could not be arrested with tannin, turpentine, or styptic cotton. Paquelin's cautery was applied, and when the oozing was checked a small bleeding artery was found in the middle of the cut tonsil. The cautery, and the pressure produced by long clamps with padded blades, one on the tonsil, the other on the cheek, failed to check the hæmorrhage. The patient's condition becoming critical, ether was administered, and as much of the bleeding tonsil seized with large volsella forceps as possible, and the stump of the tonsil ligatured, the ends of the silk being carried out of the mouth and secured to the cheek. This completely checked the hæmorrhage, and the ligature came away on the fourth day, and the hæmorrhage did not recur.

R. Norris Wolfenden

VALAT.—The Treatment of Hypertrophy of the Tonsils by Ignipuncture. *Gaz. des Hôp.*, 17 Nov., 1888.

IN this essay the author deals first with the symptoms produced by tonsillar hypertrophy, the insufficiency of medication, and a history of cauterisation, and then deals with the indications for this special treatment. St. Germain and Guersant (who has practised tonsillotomy in more than a thousand infants) lay down the rule that tonsils should not be removed after the age of seventeen or eighteen, and ignipuncture should be chosen for the adult, more especially if the patient has repeated epistaxes or hæmophilia. Inflamed tonsils also should not be removed; the tonsil tears, and pieces have fallen over the orifice of the larynx (Tillaux) and caused suffocation. The risk of hæmorrhage is then also very great. There are many cases in which the tonsils are completely hidden behind the faucial pillars, and in which it is dangerous to use the bistoury, and the amygdalotome cannot be employed. Ignipuncture is the only method applicable. In the case of concretions in the tonsils the tonsillotome may break. This happened to Liégois and to Maissoneuve. Recurrence of

hypertrophy occurs after ablation with the tonsillotome. St. Germain maintains that this is very frequent. Valat asserts that ignipuncture of the tonsils is not especially painful. Cocaine, however, should always be applied first. The finest thermo-cautery point (about two millimètres) is employed. In the case of refractory patients, St. Germain's mouth speculum is to be used, which permits a perfect examination of the throat. The hot point is to be embedded in the tonsil about half a centimètre, and three or four cauterisations are practised at one sitting, each distant from the other some millimètres. The operation is then repeated upon the other gland. A dull red heat is indispensable, so as to avoid producing hæmorrhage. Keeping the places touched some millimètres from each other prevents the formation of a slough and painful ulcer. The heated point should be left buried in the tonsil for one or two seconds. The operation is repeated twice a week. For the reduction of very large tonsils, at least five weeks' treatment was required; in slighter cases atrophy was obtained in two to three weeks. Astringent gargles, insufflations of alum, &c., are recommended in the intervals. Verneuil's suggestion for the patient to surround the neck during the morning toilette with a towel wrung out in cold water, and to keep it on for about five minutes, is a good one. The advantages of the thermo-cautery are—(1) the ease in its application; (2) its innocuousness; (3) the possibility of graduating the atrophy; (4) its applicability to cases in which a cutting instrument is contra-indicated; (5) the absence of the three complications observed sometimes after tonsillotomy (recurrence, diphtheritic contagion, hæmorrhage).

R. Norris Wolfenden.

BAILEY, A. C. (West Randolph).—*The Anatomy, Physiology and Therapeutics of the Pharynx.* *Boston Med. and Surg. Journ.*, October 25, 1888.

AMONG the whole list of diseases that ever infected the human race in this particular part of the country, none more frequently came under the observation of the general practitioner than inflammation of the pharynx, or some of the openings communicating with it. From repeated attacks it is liable to become chronic, and to cause, by continuity of tissue, a catarrhal state of the Eustachian tubes, larynx, œsophagus, posterior nares and bronchial tubes, whereby the normal tone of the whole system is lowered.

The author gave in detail the anatomy and physiology of the pharynx, after which he said the first essential in the successful treatment of diseases of the pharynx, or any of the passages or cavities leading therefrom, is cleanliness. Cleanliness alone is sufficient to bring about a cure, at times, without the assistance of remedies, and especially is this the case when the inflammatory process is kept up by constant exposure to an atmosphere loaded with irritating substances in such quantities as to overwhelm the normal functions of the ciliæ of the ciliated epithelium, and so interfere with the action of the glands. Most cases are of long duration, and inflammatory changes have taken place, giving rise to hypertrophies, ulcerations, &c. The most common, but not the most effective way, of cleansing the posterior oral cavity is by gargling. When

we desire to reach the posterior surface of the pharynx, gargling is of no benefit whatever.

The author condemned the method of drawing the medicine up from a tumbler, or of snuffing it from the palm of the hand. The douche and the atomizer are to be greatly preferred, the atomizer being best of all. The agents employed in treating the pharynx or nasal passages should be such as, if accidentally swallowed, would cause no deleterious effects.

For ordinary cases but a few agents are necessary. The bicarbonate, biborate, and chloride of sodium and the chloride of ammonium, in the strength of four to eight grains to the ounce, are all effectual, all of them being slightly astringent, mildly stimulating, and aseptic. Bromide of potassium, fifteen to the ounce, is valuable when slight anaesthesia is desired. In simple congestion, mild stimulation with chloride of ammonium is beneficial. If there is hypertrophy, and stimulation is contra-indicated, bicarb. sodium would come in play on account of its non-irritating character.

In cases with offensive discharges use biborate of soda, or permanganate potass., gr. i to ounce; carbolic acid, gr. i to ounce; or salicylate of soda, gr. v to the ounce. So far as internal medication goes, there are usually special indications in each individual case. R. Norris Wolfenden.

SECRÉTAN.—Measles and Scarlatina. (*Soc. Vaudoise de Méd.*) *Rev. de la Suisse Rom.*, 20th March, 1888.

THE author, in reviewing the cases he had treated during the year, remarked on the importance of *pre-eruptive diagnosis* in measles, of observing eruption on the roof of the mouth and velum of the palate. When small red patches (described by d'Espine and Heim) are found we have a very certain sign, especially if the invasion is prolonged. The violet angina of scarlatina, which also forms an eruptive rash where it is diffused on the roof of the mouth and palatine vault, is equally characteristic. It cannot be confounded with the slight angina which exceptionally marks the onset of measles. In two cases of measles, in which the invasion period lasted eight and ten days, the characteristic stippled redness of the roof of the mouth and the palate made the diagnosis assured three days before the cutaneous eruption.

SECRÉTAN had seen out of a total of fourteen cases of scarlatina two undeveloped forms with very intense angina, and two cases of acute nephritis during convalescence. In all these cases the tonsils were dotted over with grey-white adherent patches, but the condition was not true diphtheria.

ROGIVUE has observed fifty cases of scarlatina, amongst which were three cases of diphtheria in which the pseudo-membranes had involved the pharynx and nose, one case of retro-pharyngeal abscess, many cases of nephritis, a case of cervical adenitis, and four of scarlatinal rheumatism. Two fatal cases were due to diphtheritic infection. One patient had a violent diphtheritic angina, with feeble eruption, and later on general rheumatism, pleuritic exudation, and coma.

SECRÉTAN remarked that he had seen a case occur in an old man,
C

who did not go out of his house, but the contagion had been carried probably by his servant, who for ten days had had a tenacious angina, but without cutaneous eruption.

R. Norris Wolfenden.

HOPMANN.—A rare case of the presence and wandering of a Foreign Body for nine months in the Throat. *Berl. Klin. Wochens.*, No. 44, 1888.

THE patient, 34 years old, had a swelling, accompanied with fistule and purulent discharge in the anterior region of the neck. The mucous membrane of the throat and larynx were normal. The patient gave a history of having caught cold some months previously, since which the neck had swelled. He got relief as soon as purulation began. Under narcosis the fistule were incised and the foreign body found and removed, and some weeks later there was a perfect cure. The foreign body proved to be a bone, and the patient then remembered that the first difficulty in swallowing occurred suddenly after having eaten a meal of meat and bread.

Michael.

THE MEDICO-CHIRURGICAL HOSPITAL, PHILADELPHIA.
—Poisoning by Sulphuric Acid. *Med. Times*, September 15, 1888.

A POST-MORTEM was recently held on a case which died from the effects of injury by sulphuric acid swallowed eight months before. A whalebone bougie, with tips of increasing size, had been used for months to keep the œsophagus open. The patient was able to swallow a sufficiency of food readily, but was troubled with persistent vomiting, and was much emaciated. The œsophagus was a cicatricial mass from the pharynx to the stomach; there were many cicatrices on the lesser, but none on the greater curvature; the pylorus was much narrowed by dense fibrous stricture. A small, false passage led from the middle of the œsophagus downwards and forwards about four inches, ending in a small pouch which was adherent to both lungs, and seemed to discharge its contents into minute bronchi. The stomach was greatly distended by sour food. To account for the presence of cicatrices on the lesser curvature only, and at the pylorus, the longitudinal rugæ of the stomach must, when the acid was taken, have been so approximated as to shut off the fundus and greater curvature from contact with the caustic.

R. Norris Wolfenden.

CRÉQUY.—Extraction of Foreign Bodies from the Œsophagus. *Gaz. des. Hôp.*, 8 Nov., 1888.

THE recent communication of Prof. Verneuil to the Academy of Medicine on this subject leads the author to report a method which has been practised by him many times with success. It consists in mixing up a skein of thread between the hands, so as thoroughly to entangle it, then in fixing it in the middle by a long and stout thread, 40 or 50 centimètres long, enveloping it in some "confiture" agreeable to the patient, and making him swallow it. As soon as the foreign body is supposed to have been passed, the thread is drawn up again along with the foreign body. This method is especially useful in cases where bones are supposed to be lodged in the gullet.

R. Norris Wolfenden.

NOSE AND NASO-PHARYNX.

COOMES, M. F.—Improvements in Nasal Surgery. *Kentucky State Medical Society, July, 1888.*

IN cases of stenosis, either bony or cartilaginous, the Morrison dental engine with suitable drills was most valuable, and its application was painless. Trephines were most conveniently used with the engine for the removal of certain cartilaginous and other growths. This galvano-cautery was very valuable, but the speaker knew of no instrument which was calculated to do so much injury by its improper use. He found it rarely necessary to use it in the nose. It is quite mythical to suppose it able to cure hay fever, and large areas of mucous membrane might be destroyed in the nose, leaving conditions which would set up dry catarrhs. The author mentioned a number of instruments devised by himself.

R. Norris Wolfenden.

HINDE, A. (Chicago).—Two cases of Intra Nasal Disease. *Medical Record, August 11th, 1888.*

(1) RHINOLITHIASIS.—This occurred in a little girl five years old, who had suffered from increasing nasal discharge for some time. In the left naris a yellow white object was plainly visible: it was movable, its surface slippery and soft, without grating sensation, and it occupied the inferior meatus. It was impossible to remove it through the anterior naris, but on attempting to rotate it, it most probably had passed beyond the posterior nasal opening and had been swallowed. This was most likely the case, because three days after, when an attempt was to be made to extract the calculus, no rhinolith could be found.

(2) PRIMARY INTRA NASAL CARCINOMA.—This occurred in a man aged twenty-nine, in whom two operations had been performed for what were supposed to be simple polypi. Latterly the case had been thought to be fibro sarcoma. When Hinde first saw him, he found complete stenosis of the right nostril, which was almost entirely filled with a gelatinous-looking vascular growth, bleeding freely on the slightest touch. There was a tumour just below the right internal canthus about the size of a hazel nut. The tumour was also seen to extend through the posterior nasal opening, and the roof of the pharynx was red and swollen. The facial growth on being removed, proved to consist of alveoli of glandular epithelial cells embedded in a matrix of connective and myxomatous tissue. Dr. Parkes removed the intra nasal growth by Langenbeck's method. The growth was found to extend to the anterior ethmoidal cells. Six weeks afterwards the patient was again examined, and the tumour was again found to be growing. At the end of three months from the operation, the nasal stenosis was again complete, the condition of the patient being the same as when first seen, and the facial growth was again the size of a hazel nut. Microscopical examination proved the tumour to be of the same nature as the piece previously examined.

R. Norris Wolfenden.

WRIGHT, J. (Brooklyn).—A Pathological Condition of the Middle Turbinated Bone. *Medical Record, September 8, 1888.*

THE author discusses in this paper the causes, symptoms, and treatment of the pressure exerted by the middle turbinated bone upon the septum. Though many cases occur in which the mucous membranes of the septum and turbinated bone are in contact they present no symptoms. The author believes bony pressure to be always pathological, and to give rise to more or less severe symptoms sooner or later. In these conditions there is usually atrophy of the mucous membrane, associated with condensing osteitis, and it is often associated with nasal polypus. The close apposition of the bone to the septum must be explained by the fact of such patients, when suffering from an exacerbation of their coryza, making exaggerated expiratory efforts which force upwards and inwards the middle turbinated bone against the septum. The condition becomes permanent, and union may take place between the parts. The subjective symptoms caused by this condition are headaches, neuralgia, and the various reflex neuroses. The author relates a case of spasmodic sneezing relieved by boring through the right middle turbinated with the electric trephine, and removing pieces of the bone from the middle and posterior ends. In addition to ethmoidal suppuration accompanying this condition we may have general atrophic or hypertrophic rhinitis, nasal polypi, post nasal and Eustachian catarrh, adenoid vegetations, and deviations of the septum, each of which conditions must be treated before attempting relief of the turbinated pressure. Sometimes the author has made use of scissors, and has sometimes succeeded in enclosing the bone in the loop of a snare by forcing it between the septum and bone by means of a notched probe. This operation is not desirable, however, since it destroys the whole middle turbinated bone, and should only be undertaken in order to remove obstruction to free drainage in extensive suppurative inflammation of the ethmoid cells, frontal or maxillary sinuses. The author prefers the use of the nasal trephine, worked by the electro motor, making openings through the bone, so as to honeycomb it when the line of contact can be broken by forceps, probes, scissors, or snare. Even when the operator has not succeeded in removing the bone from its contact with the septum, excellent results are obtained by breaking up the firm bony framework and relieving the pressure. The bone must also be forced away from the septum by tampons. After treatment is most important

R. Norris Wolfenden.

ROE, J. O. (Rochester).—The frequent dependance of Persistent and so-called Congestive Headaches upon abnormal conditions of the Nasal Passages. *Medical Record, August 25, 1888.*

IN one case headache which had lasted for fourteen years was cured by removal of a bony ridge from the septum which pressed firmly into the middle turbinated body. Another case of severe occipital pain with intermittent chest pain, in which the same condition existed, with the removal of the nasal abnormalities the pains were cured. Details of five other cases are given, successfully treated by the removal of intra-nasal hypertrophy. The author regards these headaches as reflex, and discusses

the physiology of their origin. With regard to the pain, this varies from a dull ache to neuralgia; it may be intermittent, transient, recurring at intervals, or may be persistent and continuous. In the latter case it is generally due to constant pressure between parts which are found to be more or less bony or firm; when transient the pressure is between soft tissues, and with the subsidence of the engorgement the pain disappears. The location of the pains in the head has no constant relation to the disease, nor to its seat in the nose, but from the inferior turbinated body and lower portion of the septum the pain is oftenest reflected to the lower and posterior portions of the temporal, parietal, and occipital bones. Pain originating from the region of the middle turbinated bone is commonly referred to the temple, sometimes invading the whole region from the nose to the parietal eminence, and extending to the vertex. Pain originating in the superior turbinated region is commonly felt in the frontal and supra-orbital regions, sometimes completely surrounding the eye, or centred in the back of the eye-ball. In all cases of persistent congestive headache, the nasal passages should be carefully examined; in case there is pronounced nasal irritation and the absence of any constitutional cause, or drugs fail to control it, we have presumptive evidence that the condition originates in the nose. The treatment consists in the removal of the intra-nasal causes.

R. Norris Wolfenden.

BISCHOFSWERDER (Berlin). — On Primary Rhinitis Fibrinosa. *Archiv. für Kinderheilkunde. Band 10, Heft 2.*

A REVIEW of cases reported, with communication of two original cases.

Michael.

FARAVELLI and KRUCH. — The Relation between Diseases of the Lachrymal Apparatus and Diseases of the Nose. *Pavia. 1888.*

PLATNER, Desmarres, Schinner, Rampololi, and Wieden have occupied themselves with this subject, and Bresgen has a few allusions to it. Ziem, Harrison Allen, Gruening, and Bosworth also refer to it. Faravelli and Kruch, from their investigations, arrive at the following conclusions: —

1. Diseases of the lachrymal apparatus arise in the greatest number of cases from nasal conditions.

2. The most frequent cause is circumscribed or diffused hypertrophy (growths included), simple atrophy, deviations of the septum, acute catarrhal rhinitis and *ozæna* are also causes.

Massei.

SCHUSTER (Groningen). — Contribution to the Study of Empyema of the Frontal Sinus. *Monatssch. für Ohrenheilkunde, No. 10, 1888.*

IN two cases the author diagnosed from headache and feeling of pressure in the frontal sinus that there was empyema of the frontal sinus, and he applied the probe in the manner recommended by Jurasz; he then introduced a cannula in the same way, removing the pus and injecting anti-septic fluids. By the injection of air through the cannula, the discharge of pus was much relieved. Both cases were cured.

Michael.

KRIEG.—On Empyema of the Antrum of Highmore. *Württemberg Med. Corresp. Blatt.*, Nos. 34 and 35, 1888.

THE author describes twenty-three cases of this disorder, in nearly all of which the cause was due to carious teeth. He recommends the extraction of the bad tooth and perforation of the antrum through the alveolus. One of the cases was of great interest, because the case was one of acute empyema of the antrum occurring in the author himself. The condition originated in an acute coryza, great pain suddenly occurring in the upper jaw, followed by swelling of the skin and a feeling of weight in the antrum. Perforation was performed, and there was a sudden copious discharge of yellow viscid secretion through the nose, which was followed by instantaneous relief and speedy cure. Some years after the author had two relapses of the condition.

Michael.

NIEDEN.—The Connection between Diseases of the Eye and Diseases of the Nose. *New York Med. Jour.* July 14th, 1888.

HE considers that one of the chief causes of anisometropia lies in the general symmetry of the orbital and nasal region and cavities which is so often found to exist. He also recognizes the fact that various affections of the eye are due to a previously diseased condition of the nasal mucous membrane. Some of these processes are propagated by direct inter-mediation of the nasal portion of the lachrymal canal, and so introduce infectious inflammation of the neighbouring lining membranes that are similarly constructed. Reflex processes, excited by the nerves of the nasal mucous membrane, also give rise to reflex sympathetic affections in the eye and its neighbourhood. These reflex processes depend upon the anatomical fact that both cavities are supplied by twigs of the first and second trigeminal branches of the naso-ciliary and sphenopalatine nerves. They can also be explained by the associated action of the ciliary and rhinic ganglia. Nieden thinks that chronic inflammation of the nasal mucous membrane, in which a thin secretion desiccates upon the surface in the shape of brown or greenish crusts of dried mucus, which readily decompose and give rise to the repulsive characteristic odour, together with the atrophy of the turbinated bones, are considerably influenced by the absence of the constant though slight moistening of the nasal passages normally excited by every motion of the eyelids. The development of chronic rhinitis into *ozæna* is largely due to the absence of this regular lachrymal secretion. He considers that phlyctenular keratitis almost invariably has its origin in a disease of the nose, and that the trouble can only be permanently and certainly relieved when simultaneously the pathological condition of the diseased mucous membrane of the nose has been treated and restored to its normal state. Nieden concludes his paper by reporting in detail four very interesting cases:—The *first* was a case of polypus, starting from the upper portion of the nostrils, first perforating the median left and then the right orbital wall, and causing bilateral exophthalmus, and finally death, with cerebral symptoms. The *second* case was one of myxo-sarcoma of the mucosa of the superior nasal sinus, rupture of the ethmoid plate, extension of the cranial cavity, and thence to the base of the brain and into both orbits, with neuro-retinitis, bilateral

exophthalmus, amaurosis, and death in coma. The *third* was a case of chronic empyema of the right frontal sinus and ethmoid labyrinth, with rupture into the right orbit, dislocation of the eyeball outward, and direct communication of the abscess with the nasal antrum. The *fourth* was a case of diffuse hypertrophy of the nasal mucous membrane, empyema of the maxillary sinus, infra-orbital neuralgia, right blepharospasm, with a cure following evacuation of the abscess and cleansing of the nasal and maxillary cavities.

R. Norris Wolfenden.

GRADLE.—Ocular Symptoms due to Nasal Disease. *New York Med. Jour.*, July 14th, 1888.

HE presents his observations in the following order:—1. Lachrymation is not infrequently the result of nasal disease, without primary lesion of the tear-passage or of the eye. In some instances the persistent and annoying epiphora follows an acute attack of nasal catarrh. In other cases the lachrymation varies with the season, and is preceded by the signs of irritation of the front part of the nasal passages. It is probable that the flow of tears is increased in a reflex manner by the nasal irritation. 2. A marked type of ocular trouble of nasal origin is presented by a combination of a feeling of fulness of the lids and itching, with or without lachrymation, sometimes with more or less pain in the eyes. The ocular symptoms may be intermittent, remittent, or persisting for weeks or months. The diagnosis of nasal reflex is strengthened in such cases by the fact that the correction of any existing refractive anomaly is insufficient to remove the annoyance. Whenever in such instances the eye-strain is persisted in, there usually follows a congested condition of the conjunctiva. In all these cases the nasal disease consists of irritability of the blood vessels in and beneath the mucous membrane on the anterior end of the inferior and middle turbinated bones, and in rare cases the upper and forward part of the septum. Distant reflexes, which sometimes involve the eyes, may arise from almost any part of a diseased nose or throat, but the great majority of nasal reflexes depend on the anomaly termed "irritable nose," with sudden engorgement of the nasal blood vessels. In some instances the irritability of the nose depends upon the presence of some other lesion. Polypi may play this rôle of primary factor, but more often it is a catarrhal inflammation of the nares. In these instances a four per cent. spray of nitrate of silver once a day, preceded by a spray of cocaine, gives relief to the patient. Where there is much discharge, it is better to remove it first by means of a douche of bicarbonate of sodium. Where no cause can be found for the nasal irritability, the only means of relief consists in the destruction of the cavernous tissue, and where the vascular tissue is not much hypertrophied this may be done by chromic acid. The galvano-cautery is more thorough in its action, provided a strong current is employed. 3. Another type of ocular disturbances, also characterized by itching and discomfort in the lids, is peculiar in the periodicity of the attack. The trouble begins between May and July every year, and terminates promptly with the first cold days of autumn. A peculiar conjunctival lesion forms during the course of this affection, appearing first as a slight follicular enlargement, and ending in

the formation of large, flat, yellowish, follicular granules. 4. A somewhat different type of symptoms results in those instances in which there is less itching or the lids, while photophobia, with or without pain, is more prominent. Such eyes are often bloodshot. There may be more or less asthenopia and lachrymation. 5. In other cases there may be a more or less marked injection of the circumcorneal vessels. 6. Sudden congestion of the lids, varying from an erysipelatoid condition to a mere superficial erythema, is not very uncommon in patients with irritable noses. The attack resembles genuine erysipelas, but it does not spread, and, as a rule, is not accompanied by much rise in temperature. It may last from two to six days, and is followed by more or less desquamation. After its first occurrence it is apt to return at intervals of months or years. 7. In other instances vaso-motor reflexes occur in the form of sudden œdema of the lids. The attack lasts only a few hours, or at the most, a day.

R. Norris Wolfenden.

MICHELSON.—A case of Fibroma of the Naso-Pharynx. *Verein für Wissenschaftliche Heilkunde in Königsberg*, 14th May, 1888.

THE tumour in question was removed with the galvano-caustic wire. Two patients were also shown by Michelson with deformities of the nose, resulting from cicatricial processes.

Michael.

LARYNX.

JACQUES.—Intubation of the Larynx in Croup. *Paris. August*, 1888.

INTUBATION is superior to tracheotomy, and should be performed upon all patients under 3½ years of age. The author, however, realises that the operation presents some inconveniences, and that in certain cases tracheotomy becomes indispensable.

Joal.

O'DWYER (New York).—Intubation of the Larynx. *Deutsch. Med. Woch.*, No. 46, 1888.

A RECOMMENDATION of this surgeon's well-known method, already fully discussed in this journal.

Michael.

JELENFFY.—On the Anatomy, Physiology, and Pathology of the Laryngeal Muscles. *König. Gesellsch. der Aerzte in Buda-Pest*, 27 October, 1888.

THE author agrees with Krause that the so-called posticus paralysis is caused by irritation, and contradicts the theories of Semon as to the existence of primary paralysis of the abductors.

Michael.

HOOVER, FRANKLIN H.—Effects of varying Rates of Stimulation on the action of the Recurrent Laryngeal Nerves. *Reprinted from the New York Med. Journal*, November 3, 1888.

PROFESSOR BOWDITCH and the author have previously recorded the fact that the rate of stimulation of these nerves is an important factor

in producing an opening or closing of the glottis. They stated that slow rates of stimulation (18 to 20 induction shocks per second) with weak currents produced in dogs an opening of the glottis, while more rapid rates (30 to 40 per second), with the same feeble current, produced closing. The authors also surmised that the reason why other observers had obtained opening of the glottis with weak currents was probably because they had employed interruptors with slow rates of vibration. The authors have also previously recorded the observation that under sulphuric ether the normal action of the recurrent nerves is reversed in the dog, the glottis dilating instead of closing on stimulation of these nerves. In these experiments, in order to get rid of the "ether effect," the authors have chloralised their dogs, under which narcotic this effect is not observed. The conclusions drawn from the present series of experiments are:—1. It requires a more rapid rate of vibration to produce a closure of the glottis in cats than in dogs. 2. In cats the rate of stimulation necessary to effect a closure must be from 70 to 80 a second; in dogs from 30 to 40. 3. Rates slower than 70 a second produce in cats an opening of the glottis; in dogs rates slower than 30 produce opening. 4. The intensity of the current influences the effect of varying rates of stimulation. 5. Weak currents with slow rates produce openings. 6. By increasing the rates, the intensity remaining the same, closing results. 8. Closing is produced more readily by increasing the rate than by increasing the intensity.

R. Norris Wolfenden.

FELICE, F.—**Laryngeal Paralysis from Aneurism of the Aorta.** *Arch. Ital. di Laring.*, October, 1888.

OF three cases here recorded, one is of interest, because it was supported by an autopsy. There was complete immobility of the left vocal cord, which was seen by the laryngoscope to remain in the median position, and there was some paresis of the right vocal cord. A cylindrical aneurism was found, involving the arch of the aorta. The sac was adherent to the second, third, and fourth dorsal vertebrae. Chronic deforming arteritis was found, the trachea was compressed into scabbard shape, and the narrowest portion corresponded to five centimètres above the bifurcation. Both recurrent nerves were compressed.

Massei.

LA PLACA, N.—**Hæmorrhagic Laryngitis.** *Archivii Italiani di Laringol.*, October, 1888.

TWO cases of hæmorrhagic laryngitis observed in Massei's clinic for diseases of the throat form the basis of Placa's essay. He is of opinion that hæmorrhagic laryngitis is to be defined as "a catarrh, followed by hæmorrhage from the mucous membrane of the larynx, which is otherwise healthy and without ulceration." Thus all cases of traumatic laryngitis and chronic destructive processes are excluded.

Only seventeen such cases are known up to the present. In Massei's clinic, during five years, 982 cases of laryngitis were observed, only six of which were hæmorrhagic—that is, a proportion of about 0·6%.

According to La Placa, the cause of the hæmorrhage must be sought not only in the cough, but in diminished resistance of the vessel walls,

as occurs in every inflammatory process, and particularly so in this condition. Short considerations on the pathology, symptomatology, diagnosis, prognosis, and treatment, complete the author's paper, which is presented as a thesis for the doctorate.

Massei.

INGALS, E. F. (Chicago).—**Subglottic Laryngeal Tumour.** *Med. News*, November 3, 1888.

CARTILAGINOUS tumours of the larynx are very rare. The subglottic growth in question, which was thought to be cartilaginous, occurred in a man twenty-four years of age, and was situated just below the anterior commissure measuring about four mm. in thickness, and six or seven mm. at its base. The colour was yellowish, the surface was smooth but slightly nodular, and its base occupied partly the inner surface of the thyroid cartilage, and partly the inner surface of the cricothyroid membrane. Dr. Ingals has succeeded in reducing the size of the tumour very considerably by cauterizations of chromic acid, applied on the end of an aluminium wire, over which is slipped a section of small rubber tubing, cut away at its lower end to expose the acid in front. The tubing was tied on with a silk thread. This is a convenient instrument for applying caustics to the larynx. Dr. Ingals hopes with more systematic cauterizations to eradicate the tumour altogether.

R. Norris Wolfenden.

SUCHANNEK (Zurich).—**Laryngitis Hypoglottica Acuta.** *Corresp. Schweizer Aerzte*, No. 18, 1888.

A BOY eleven years of age got dyspnoea and hoarseness a quarter of an hour after having sucked a bone. No foreign body was found in the œsophagus—with the laryngoscope red tumours in the subglottic part of the larynx could be seen. The condition was cured by inhalations of cocaine. It was remarkable that the cough of the patient was not croupy, though the laryngoscopical appearances were the same as those of pseudo croup.

Michael.

BEHRENS.—**On Foreign Bodies in the Respiratory Passages.** *Inaugural Dissertation. Kiel.* 1887.

THE patient suddenly became feverish, and experienced cough and recurring hæmoptysis. Four months later death occurred from hæmorrhage. Autopsy revealed perforation of the right bronchus and the pulmonary artery by a foreign body. A description of five cases in the museum of Kiel, and a report of all cases published since 1861, concludes the article.

Michael.

ACKERMANN, G. (Wheelnig).—**Water Melon Seed in the Right Bronchus: Operation—Recovery.** *Med. News*, November 10th, 1888.

A CHILD two years old "swallowed a water melon seed, which lodged in the windpipe, four days previously." Voice was husky, and there were occasional violent paroxysms of croupy cough. There was delayed inspiration over the right lung, with cogwheel-like murmur. Inferior tracheotomy was performed, and the seed was grasped by a pair of long, slender forceps introduced into the right bronchus. In ten days the child was well.

R. Norris Wolfenden.

KOEHLER.—A Foreign Body in the Larynx. *Berl. Klin. Wöch.*, No. 44, 1888.

DURING a course of operations on the cadaver, laryngotomy was performed. On opening the larynx a one mark piece was found in it, and there was also perichondritis of the thyroid cartilage. The patient had suffered from chronic phthisis, but, except for hoarseness, had never exhibited any symptoms of the presence of a foreign body. Michael.

KEIMER (Dusseldorf).—The Treatment and Cure of Laryngeal Tuberculosis. *Deutsch. Med. Wöch.*, No. 46, 1888.

A RECOMMENDATION of the lactic acid treatment.

Michael.

GOUGENHEIM and TISSIER. A Pseudo Polypoid Laryngeal Phthisis. *Ann. des Mal. du Larynx, &c.*, July, 1888.

POLYPOID vegetations are often met with in young people, without any other lesion of the larynx, preceding pulmonary phthisis. They are to be distinguished from the papillary granulations met with in tubercular infiltration (Forster's Dermoid metamorphosis), and are not to be confounded with the vegetations met with on the surface or edges of ulcerations. In these polypoid forms there is neither ulceration nor substratum of infiltration, at least at first. Andral pointed out the occurrence of these "cauliflower growths" in tuberculosis. Mandl, in 1872, also described them. Aritza and John N. Mackenzie have reported cases. Later, Schnitzler, Foa, Percy Kidd, Gougenheim, Heryng have reported cases. The condition is pretty rare, but it is well to bear it in mind in every case occurring in a young subject, without evident pulmonary lesion, in whom there are laryngeal troubles and polypoid vegetations are discovered laryngoscopically. Their usual situation is the base of the epiglottis at the level of the cushion, the inter-arytenoid region and the subglottic space; but they have occurred upon the true cords (Kidd), the vocal bands (Heryng), and walls of the ventricle (Schnitzler). They are sometimes solitary, of the size of a pin's head to that of a small nut, and implanted at the posterior part of the cords, or on the inter-arytenoid region; they are ordinarily grouped under the form of cauliflower, forming a lobular mass, more or less pedunculated, sometimes sessile. In colour they are white, rosy, yellow, or congested. Their consistence is very soft; they can be removed with ease, and are little more resistant towards the point of their implantation—thus they are sometimes spontaneously detached by coughing. Sometimes they may give rise to actual stenosis of the larynx. At the level of the epiglottis the vegetations are placed on the region of the cushion, filling all the anterior portion of the vestibule extending to the anterior commissure.

When in the ventricle they extend to the glottic opening. In the subglottic region they are more numerous, seated near the anterior commissure and provoking stenosis. In the inter-arytenoid region they reach between the cords and hinder their movements. Histologically, the tumours are covered with stratified epithelium; the base is connective tissue, with a few fibrils. The bulk of the growth is of small round embryonic cells, some of which are already granular. When the tumour is older, the

infiltration is most at the base, and the rest of the mass is little consistent, granular, colours orange with carmine, and contains enormous giant cells. Glandular acini have been noticed (Foa). When more resistant, these tumours are like granulation tissue, with small nuclei of caseation, giant cells, and contain bacilli. These growths in their development rapidly occlude the larynx, giving rise to dyspnœa, and also to spasmodic attacks, which often end in expulsion of portions of the growth. The growth, however, rapidly recurs. The diagnosis is not difficult from their site, colour (they are yellower than papilloma), and microscopic examination. Probably some cases of papilloma published have been of tubercular origin. In these cases it is easy to understand how successful becomes the application of Voltolini's sponge method.

R. Norris Wolfenden.

GILLET DE GRAMMONT.—On Tracheotomy. *Soc. de Méd. Pratique.* June, 1888.

SOME considerations (comprising nothing new) on tracheotomy in the case of a child operated on by the author.

Joal.

RUAULT.—Glottic Spasm of Nasal Origin. *Archiv. de Laryngol., &c.,* November, 1888.

THE author closes a long and interesting paper, containing many clinical facts, with the following theses:—

1. Certain lesions of the mucous membrane of the nasal fossæ, such as mucous polypi and hypertrophic rhinitis, may provoke reflexly repeated attacks of spasm of the glottis, which in certain cases may be sufficiently severe as to necessitate tracheotomy.

2. These attacks of laryngo-spastic dyspnœa may last for a very long period, sometimes twenty years or more, not yielding to any medication, but being rapidly cured by treatment of the intra-nasal affection upon which they depend.

3. Women, and particularly the hysterical, appear to be predisposed to the affection; but it may occur as readily in individuals of both sexes who do not and never have presented any signs of hysteria.

4. Glottic spasm of nasal origin may affect children as well as adults.

5. Along with glottic spasm, bronchial spasm may occur, and one sometimes finds a more or less accentuated spasmodic state of the respiratory passage persisting for a long time beyond the attacks.

6. Affections of the voice due to phonatory spasm are a frequent complication of the disorder.

7. Prognosis is very good when the affection is recognised, but bad in the contrary case. (See *antea*.)

8. Diagnosis is made by excluding all causes of glottic spasm; then by anamnesia, and complete rhinoscopic examination, along with examination with a probe and cocaine.

9. The treatment of the attack, when severe, consists in the intra-nasal application of cocaine, the administration of chloroform, or, if necessary, opening the trachea.

10. The treatment of the disorder is really only that of the nasal affection which is the cause of it.

R. Norris Wolfenden.

LANGENBECH.—On Tracheal Tamponnading. *Berl. Klin. Woch.*, No. 44, 1888.

THE author has employed a cannula surrounded with a piece of cotton after tracheotomy performed for diphtheria. He has had 45 per cent. of cures out of a total of 40 cases. Before he employed this method he had only 28 per cent. of cures.

Michael.

SCHEDE.—Extirpation of the Larynx. *Aerztlicher Verein in Hamburg*, 20th, November 1888.

THE patient was a woman 50 years of age, whose larynx had been extirpated by Schede four and a half years ago. She had first consulted Dr. Michael for hoarseness and dyspnoea. He performed tracheotomy, and 14 days later sent her to the hospital for extirpation of the larynx, which was performed 6th June, 1884. In the same year a second operation was performed for slight recurrence in the trachea. Since that time the patient has been healthy. She wears a Brun's artificial larynx, and has with it a very good voice. A second case of Schede's of extirpation of half the larynx died three years after from fibrinous pneumonia, but without recurrence of the original disease. Two other cases in which total extirpation were performed died later from recurrence.

Michael.

KUSTER.—Partial Extirpation of the Larynx. *Berliner Medicinische Gesellschaft*, 31st October, 1888.

A PATIENT, 55 years of age, was shown by Kuster, upon whom Barth had extirpated half the larynx for carcinoma. The patient is now quite well and speaks with a good voice. He also exhibited the specimen of another case, of a patient 25 years of age, who died some weeks after the operation, from bronchitis and canceroid of the lungs. B. Fraenkel remarked that such cases should be operated upon as early as possible, so as not to require removal of so much of the larynx.

Michael.

KAYSER (Breslau).—A case of Laryngeal Carcinoma. Extirpation of half the Larynx.—Death. *Deutsch. Med. Wochens*, No. 45, 1888.

THE author relates the interesting case of his brother, the social democrat Abgeordneter Herr Kayser. The patient was 35 years old, had been healthy all his life, but in June, 1887, began to be hoarse. Dr. Schmaltz, in Dresden, found, in September, redness and swelling of both vocal cords and irritation of the arytenoid region. Some time later, Schmaltz recorded that the general condition was better, but the hoarseness was not cured. Dr. Myer-Hüni now being consulted, discovered a diminished mobility of the right vocal cord, which was believed to be the cause of the hoarseness. Two months later, the condition was the same. In January, 1888, an attack of asphyxia occurred suddenly, for which tracheotomy was performed in Dresden. Two days later, the author found thickening redness and immobility of the right vocal cord, and a tumour could be seen in the right subglottic region. Mercury was now administered, but without effect. Gottstein confirmed these observations, and ordered potassium iodide. He also removed a piece of the tumour

with his forceps, which was examined by Professor Ponfick, who declared it to be malignant, and probably a sarcoma. Extirpation of the larynx was determined upon and performed by Dr. Riegner. The operation lasted two hours, and the examination of the specimen proved it to be a scirrhus. Eight days afterwards, the first ring of the trachea had to be extirpated on account of a portion of tumour which may have been left unremoved, or might have been a recurrence. Two days later, death occurred from cardiac paralysis.

Michael.

SOMMERBRODT (Breslau).—**Hoarseness of 28 years' duration, Dyspnœa lasting for 5 years, Multiple Papillomata, Laryngo-fissure—Cure.** *Berl. Klin. Wochens.*, No. 42, 1888.

THE title indicates the nature of the case.

Michael.

BENNO LEWY (Warmbrunn in Schl.).—**A case of Laryngeal Typhoid in a child of one year of age.** *Archiv. für Kinderheilkunde*, Band 10, Heft 2.

THE child suffered for eight days from general spasms, diarrhœa, fever, and increasing laryngeal stenosis, which at last necessitated tracheotomy, but without avail. The autopsy proved the existence of abdominal typhoid. In the larynx swelling of the mucous membrane with much stenosis was found, and the whole subglottic region was occupied by a white tumour-like mass. Microscopical examinations showed it to be fibrinous transudation into the mucous membrane, so that the condition was a laryngitis fibrinosa. In the muciporous gland the well-known typhoid bacilli were found.

Michael.

NECK, THYROID, &c.

MUDD, H. H. (St. Louis).—**A Fibro-Myxo-Chondroma of the Neck.** *Weekly Med. Review*, November 10th, 1888.

THIS was a tumour removed from the neck of a woman aged fifty-six. Nineteen years before a little nodule had appeared under the skin near the right ear, which had subsequently developed. Eventually the tumour had stretched the skin over it very tightly, and the large and well-developed blood vessels had ulcerated and caused numerous hæmorrhages. The skin was not adherent at any place except here and there to a blood vessel, and at these points gave way upon the slightest touch. The tumour gave a sense of pseudo-fluctuation, but on removal was found to be solid and myxomatous. It was attached about the angle of the jaw behind the sterno-mastoid, with the deep vessels in front and to the inner side. The tumour measured vertically $28\frac{1}{2}$ inches, and transversely 24 inches in circumference. It was enucleated without much difficulty. The author closed up the incision, but thinks it would have been better to leave the wound open. As it was the wound suppurated. The patient would have recovered so far as the wound itself was con-

cerned had she not developed a pneumonia, from which she died nine days after the operation.

The author saw a similar case some years ago, probably fibroma, or fibro-myxoma. It was ulcerated, and caused the death of the patient.

R. Norris Wolfenden.

BIONDI.—Structure of the Thyroid Gland. *Berliner Medizinische Gesellschaft*, 31st October, 1888.

THE author's histological researches show that the gland has a great abundance of lymphoid glands. The author's observations were confirmed by Virchow and Baginsky.

Michael.

HOPMANN (Cologne).—Cure of a Case of Graves' Disease by Nasal Treatment. *Berliner Klin. Woch.*, No. 42, 1888.

THE patient, 40 years of age, with exophthalmos, and stenocardia, and general asthenia (without having any goitre), suffered also from nasal polypi and rhino-pharyngitis. With the removal of the polypi and treatment with gossypium tampons, the other symptoms were also cured.

Michael.

BUMAN.—Cystic Goitre. (*Soc. de M^d. du Canton de Fribourg.*) *Rev. M^d. Suisse Rom.*, 20th November, 1888.

THE author exhibited the photograph of an enormous lateral cystic goitre. Having operated upon a similar growth by drainage, the cure was so slow, that he had performed excision in this case with a favourable result.

NEISS mentioned that he had operated on a cystic goitre, which contained black soft substance. Prof. Roux diagnosed it as a hæmorrhagic goitre.

WECK stated that having treated a cystic goitre by injections, he now proposed to do excision.

GUTKNECHT remarked that complete extirpation should never be performed.

BUMAN thought that the age of the patient should be taken into account. Total ablation of the thyroid could certainly modify the constitution of a young subject, while it would have little influence in an older subject. Certain German journals have published cases of complete extirpation not followed by cachexia.

NEISS believed that a cyst could be completely extirpated without entirely removing the thyroid gland, and he cited a case of total ablation in which no cachexia appeared.

GUTKNECHT remarked that Billroth formerly a partisan for complete removal of the thyroid gland, performed it now only for cancer and in case of imminent danger of suffocation.

R Norris Wolfenden.

MARSHALL, C. R. (Clifton Springs).—A Case of Enlarged Thyroid producing Tracheal Stenosis. *New York Med. Jour.* July 7th, 1888.

THIS was the case of a man sixty-five, who twelve years previously had noticed difficulty of breathing, which was thought to be due to aneurism. The author arrived at a diagnosis of stenosis of the right bronchus. Dr.

Bosworth was able to see as far as the bifurcation and the trachea, and to state that the windpipe was not obstructed. Attention was not directed to the thyroid gland. Latterly the patient had become slightly cyanotic, and breathing was louder. The chest was full of rales, temperature and pulse rate increased, and the patient died. At the autopsy the heart was found enlarged, as were the superior and inferior venæ cavae. The left ventricle was hypertrophied, the aorta dilated, and the coronary veins distended. The lungs were œdematous, pleura healthy, and no sign of tuberculosis. The trachea was firmly compressed between two lobes of an enormously hypertrophied thyroid gland, which was situated behind the manubrium, extending upwards as far as the upper margin of the thyroid cartilage, and downwards almost to the bifurcation of the trachea. The trachea was flattened laterally, and its mucous membrane hyperæmic. The gland weighed $1\frac{1}{2}$ lbs., consisting of two flattened kidney-shaped lobes of equal size and very firm consistence. The trachea contained two distinct curves, and the opposite lateral walls were almost in contact.

R. Norris Wolfenden.

FRANK.—Report on the operations for Struma in the Friederichsham Hospital, Berlin, during the years 1885 to 1887. *Berl. Klin. Wochens.*, Nos. 41 and 42, 1888.

OUT of nineteen operations fifteen were cured and four patients died. In only one case was tracheotomy necessary. This was the case of a girl 17 years of age, affected with Graves' disease, and who died subsequently from broncho-pneumonia. Some fatal cases owe this result to the effect of chloroform, which produces an intense degree of irritation of the tracheal mucous membrane, which already in struma is in a chronic inflammatory condition. In one case death was caused by œdema of the lungs, in another by pulmonary hepatisation, in a third by purulent mediastinitis. One patient died some months after the operation from cachexia strumipriva. The fourteen cases which were cured showed no signs of cachexia. In three cases alterations of the voice were noticed, in one of which total aphonia had already existed from paralysis of the vocal cord before the operation.

Michael.

BERDEZ.—Goitre Operation. Paralysis of both Recurrents and Tetany. (*Soc. Vaudoise de Médecine.*) *Rev. de la Suisse Romande*, 20th March, 1888.

A BOY, fifteen years old, was presented to the Society, upon whom thyroidectomy had been performed in 1886. N. Weiss has observed that patients who have submitted to thyroidectomy are especially liable to tetany. The case presented was, moreover, remarkable from its long duration, and an extraordinary galvanic hyper-excitability. Thus upon using feeble currents, and placing both positive and negative poles upon the horizontal branch of the twelfth pair, tetanic contractions of the corresponding half of the tongue are produced, either on opening or closing the current.

HERZEN remarked that if hyper-excitability of the motor nerves consequent on removal of the thyroid is not the rule in man, it is at any rate the rule in animals. It is very remarkable, especially in the dog, which animal develops very pronounced tetanic phenomena. Sometimes

a single nerve, for example, the phrenic, is affected in the dog. Schiff has seen each cardiac pulsation determine an excitation of the diaphragm under the influence of the negative electrical variation of the cardiac muscle.

BERDEZ remarked that he had observed hyper-excitability of the phrenic nerve in tetany. He has determined raising and lowering of the liver.

R. Norris Wolfenden.

MANASSE.—**Myxœdema.** *Berliner Med. Gesellschaft*, 31st October, 1888.

THE case shown by the author was that of a woman fifty-four years of age, the first symptoms of whose disorder had appeared four years previously. While Lassar did not believe it to be true myxœdema, Virchow agreed with the author's diagnosis.

Michael.

HOPMANN (Dresden).—**The Propagation of Tuberculosis by Flies.** *Jahrsbericht für Gesellsch. für Natur- und Heilkunde zu Dresden*, 1888.

THE author examined the excrement of flies which had been in rooms of tuberculous patients, and has found numerous bacilli in it. From it, and from portions of the intestines, he could get cultures of the bacillus sufficient to infect rabbits. Through the intermediation of flies human food is infected and the disease spread.

Michael.

BREDA, A.—**The Anatomy of Lupus of the Mucous Membranes.** *Padua*, 1888.

IN some cases, and these are more frequent than is often thought, lupus may attack mucous membranes without, or quite antecedent to, involvement of the skin, and may be even more severe in mucous membranes than the skin. Chiari, Riehl, Hebra, Idelson, Lang, Kaposi are the observers who have mostly studied the question. Breda has not only confirmed these observations, but insists on the frequency with which lupus occurs on mucous membranes as a primary manifestation. The mucous membranes of the nose and throat are the most vulnerable to attack, and from this focus the neoplasm extends to the ear, tongue, eye, &c. The consequences are often very severe, since cartilages and other structures become destroyed. In the mucous passages, more frequently than on the skin, lupus is complicated with inflammation and an ulcerative process, and leads to stenosis, especially in the hypertrophic form.

Massei.

PINS (Vienna).—**On the Relation between Scrofula and its Individual Symptoms.** *Archiv. für Kinderheilk.* Band 10, Heft 2.

MANY of the symptoms attributed to scrofula must be removed from the symptomatology of this disease, since they can be caused by other conditions often found in infantile age. Rhinitis, otorrhœa, infiltration of the lymphatic glands, and impetigo are not characteristic of scrofula, and it cannot be concluded that the patient is scrofulous from these signs. Scrofula cannot then be regarded as a very common condition. Since these symptoms are often caused by neglect, it is natural to find them often in the poorer classes. Local treatment is of the first importance, since it is quite possible to cure the patient by this means alone, without general medication of the pseudo-scrophulosis.

Michael.

REVIEW.

VON SCHRÖTTER.—*Diseases of the Larynx, Trachea, Nose, and Naso-Pharynx.*¹

THIS, the third volume of the author's large work, contains his fifteenth to his twenty-first lecture. The fifteenth lecture deals with laryngeal perichondritis. There is no doubt that perichondritis sometimes exists as a primary disease; usually, however, it is a secondary symptom of acute infectious disorders, or arises in the course of development of neoplasms or tuberculosis; it can also be caused by foreign bodies. There is a simple form, and another form in which purulent exudation is present. External examination is of no value, except in thyroid perichondritis. The author has never seen purulent perichondritis of the epiglottis, but has frequently seen this condition of the arytenoid region. Thyroid perichondritis sometimes forms a fistula, through which a probe can be introduced into the larynx. Diagnosis is sometimes rather difficult, prognosis is doubtful. Death may be caused by pneumonia or septicæmia. Treatment depends upon the original disorder. If fluctuation indicates an abscess, this may be opened internally or externally. Tracheotomy frequently becomes necessary. The disease is often followed by ankylosis of the joints, which renders special treatment necessary. The sixteenth lecture treats of trichinosis, soor of the larynx, the laryngeal complication of erysipelas, measles, scarlet fever, and small pox. The seventeenth lecture deals with typhoid. If perichondritis complicates this condition, tracheotomy cannot usually be avoided. The eighteenth and nineteenth lectures deal with tuberculosis. There is no doubt that the tubercular affection is sometimes primary, but this is rare, and usually laryngeal tuberculosis is preceded by pulmonary or intestinal affection. The author has observed that the side of the larynx affected is often the same as that of the lung. The author does not believe that tubercular disease of the larynx is preceded by any suspicious prodromal symptoms. (The reporter has observed that circumscribed reddening of the arytenoid cartilages with anæmia of the rest of the mucous membrane is frequently a prodromal symptom, especially if there be coincident catarrh in the lungs). As to treatment, Schrötter recommends lactic acid as first applied by Krause, but not surgical treatment as recommended by Heryng. He regards tracheotomy as a means only of symptomatic treatment, and does not believe that it can ever cure the disease. For the relief of pain in swallowing, cocaine and morphine are the best. The twentieth lecture treats of lupus, lepra, and scleroma of the larynx. The latter is the same process as rhino-scleroma, and may be primary in the larynx or trachea just as in the nose. It is a chronic inflammation due to the infection of a special bacillus. The treatment consists in the inhalation of turpentine or aromatic infusions. If stenosis exists, dilators must be applied. The twenty-first lecture treats of the syphilitic affections of the larynx in their different forms, and of their treatment. The twenty-second lecture contains some remarks upon malleus and septicæmia.

Michael.

¹ *Vorlesungen über die Krankheiten des Kehlkopfes, der Luftröhre, der Nase, und des Rachens.* 3te Lieferung, Wien, 1888.

ASSOCIATION MEETINGS.

American Laryngological Association.

Tenth Annual Congress, held at Washington, Tuesday, Wednesday, and Thursday, September 18, 19, and 20, 1888.

President, Dr. REUFUS P. LINCOLN, of New York.

A Decade of Laryngology was the subject of the address by the PRESIDENT, who said that the members of the association were to be congratulated upon the successful termination of ten years of their labours. The association presented now every evidence of healthy and vigorous growth, and gave promise of long life. Its objects were, in brief, that the association should become the means of mutual introduction of those of kindred tastes in the practice of medicine, and of fostering friendships thereby made; that it should have annual meetings for the contribution and promulgation of original work, and for the discussion of subjects pertaining to laryngology; that its proceedings should be published in a suitable form for convenience of its members, and offered to the profession at large; that it should institute a laryngological library; that prizes should be offered for valuable contributions to the science of laryngology; that special hospitals, or wards in hospitals already established, should be devoted to throat patients; and that its members should seek recognition in the different medical colleges throughout the country by the assignment of a special chair for instruction in this department. Except the offering of a prize, all these requirements had been realized. The organization of the association had marked the beginning of a new era in laryngology. Analysing the original contributions read at the previous meetings (omitting presidential addresses), the speaker found that there had been 194 scientific papers, which might be classified as follows: (1) Anterior nares: 18 were upon diseases of mucous membrane and submucous tissue, 5 on tumours, 10 on deformities, 9 on neuroses, and 2 on the cavity of the antrum. (2) Of the naso-pharynx, 5 referred to disease of the mucous membranes and submucous tissues, 7 to tumours, and 3 to deformities. (3) Of the oro-pharynx, 18 referred to diseases of mucous membrane and submucous tissue, 6 to tumours, 2 to deformities, 6 to neuroses, and 1 was anatomical. (4) Of the larynx, 20 papers were on mucous and submucous tissue, 18 on tumours, 6 on stricture of larynx and trachea, 4 on diseases of cartilages, 18 on diseases of the nerves, 3 on fractures and wounds, 8 on anatomy and physiology, 5 on therapeutics, 2 on syphilis, 4 on vocalization, 3 on intubation and tracheotomy, 1 on foreign bodies, 1 on laryngectomy, 4 on photography, and 5 general. There had also been exhibited more than fifty new instruments, or modifications of old ones. Many papers had been illustrated by sketches, photographs, pathological specimens, or microscopical exhibitions, or accompanied by living patients. These contributions had been sought after by medical journals, and had been published in the annual volume of transactions. An attempt to disparage the specialist, or rather to criticise his relation to the patient and the family physician, at present could be met by pointing to the work done by this association, and the reply could be made that if there was a want of harmony it must be the fault of the individual rather than of the principle. The more strictly one was a specialist and the less a general practitioner "with a preference," the less chance there would be for discord between the expert and the family physician. The patient was no longer regarded as the private property of one physician. The principle of the sub-division of labour was permeating all classes of effort, while in the profession.

in addition to these principles, the old and new code were being merged into the Golden Rule. In conclusion, the speaker referred to the growing interest in preventive medicine, and called attention to the field which this opened to the prevention of diseases of the air-passages.

Imaginary Laryngeal Ulceration.—By Dr. GEORGE M. LEFFERTS, of New York. In the condition referred to the patient complained of pain affecting a portion of the tongue, giving rise to the belief that he was suffering with ulcer. Although no ulceration could be detected, even on careful examination, yet the sensation was real. Since the cause was unknown and routine treatment unsatisfactory, the subject invited our consideration. The condition had been given its name by Verneuil. The clinical appearances were usually as follows: A patient—male or female, for the affection occurred with equal frequency in the sexes, and at from thirty-five to fifty years of age—presented himself, complaining of intense pain, usually of a lancinating or darting character, limited to one half of the tongue, usually the left, and extending from its base, just opposite and below the tonsil, forward to its tip. Or the pain might be more circumscribed, and limited to the junction of the posterior with the middle third of the organ, at or near the location of the posterior lenticular papillæ. It was more or less intermittent, rarely constant; was aggravated by movements of the tongue, although these were free; was often increased by the act of mastication, and excited by hot or irritating articles of food. The patient was in fear of cancer, became demoralized, and could not be convinced that ulceration did not exist. Such patients were not invariably hypochondriacal, as had been asserted. On the contrary, the affection was met with in those who presented no evidence of a neurotic or even nervous temperament; it was occasionally seen in individuals possessing and presenting all the signs of robust health, and the mistake had been made, and was made to-day, of ascribing alone to the imaginative fears of the patient what actually existed as an undoubted, if not always demonstrable, physical and painful fact. The tongue, on examination, presented a normal appearance, unless, through injudicious applications or from other causes, there was some irritation indicated by enlargement of the papillæ, and the tongue became more or less swollen. Verneuil and, it was believed, Labbé considered this affection as purely neuralgic. Fournier, Lollé, Hardy, Luys, and Magitot regarded the symptoms as hypochondriacal. Poyet said that the delusion might be referred to one of four causes: (1) Neuralgia of the tongue; (2) imagination, leading the patient to suspect cancer; (3) hypochondria; and (4) lingual psoriasis. Cases were certainly met with which could not be ascribed to any of these causes, and where all local irritation had been removed—such as from decayed teeth, teeth filled with amalgam, or disease of the gums. The general or local cause was unknown. Injudicious routine treatment by local applications was not only unavailing, but often aggravated the condition. Nothing was uniformly successful. Applications of cocaine or aconite sometimes succeeded, but often failed, and the same was true of the various treatments usually employed for neuralgia. Electricity was of service. Hypodermic injections of analgesic drugs had been recommended, and even the galvano-cautery. Neurotomy must be discarded, mainly because of the impossibility of proving whether the lingual or the glosso-pharyngeal nerve was at fault. The object of this paper was simply to place this rare and curious affection in its true light, and bring up the question of treatment.

Dr. E. FLETCHER INGALS, of Chicago, had found rheumatism present in some cases, which had only yielded to the usual treatment for this condition. In other cases neuralgia seemed to be the cause. He mentioned a case in a man who had been shot through the chest, and who had not improved under treatment. In other cases it seemed to resemble the sore mouth occurring as a result of the tobacco

habit, which disappeared when the habit was broken. Some patients were benefited by the use of tobacco.

The PRESIDENT observed that he had met with cases associated with rheumatism, but in which this had not explained the cause. In one case the general condition had been amenable to treatment, while the local pain in the tongue had not been benefited by it.

Dr. LEFFERTS, in conclusion, said that the suggestion of rheumatism was good and applied to some cases. Many of the patients, however, were in robust health, with no suspicion of rheumatism. In regard to tobacco, many of the patients were women. The question of treatment was the special object of the paper.

Dr. EDGAR HOLDEN, of Newark, had treated six cases on the assumption that they were of rheumatic or gouty character. Three were treated successfully—two with arsenic, and one with lithia water.

A Case of Subglottic Chronic Stenosis of the Larynx treated by Dilatation.—Dr. FRANK DONALDSON, of Baltimore, reported the history of a case. The patient, a woman thirty-four years of age, presented, in October, 1887, a condition of subglottic stenosis, probably due to diphtheritic inflammation and subsequent cicatrization and contraction by membranous bands. Schroetter's long hard-rubber perforated tubes were used, commencing with No. 1 and gradually going up to No. 5, having first touched the larynx with a 15 per cent. solution of cocaine. Subsequently there had been some difficulty of breathing after a catarrhal attack, and it was possible that there might be some return of the obstructing membrane. Otherwise the relief had been complete.

Stenosis of the Larynx and Trachea.—Dr. CARL SEILER, of Philadelphia, reported a case, the peculiar points of which were, first, the fact that the patient, a small boy, had learned to articulate audibly without any air passing through the larynx. He produced the articulate sounds by filling the oral and pharyngeal cavities with air, and then, by a rapid contraction of the pharyngeal constrictors, forced it forward past the natural obstructions, thus making the consonant sounds. The second point was the peculiar features of the operation undertaken for the relief of the stenosis. This consisted of an external incision through the two upper tracheal rings and the cricoid cartilage. The operator's finger was then introduced through the mouth into the larynx, and, pushing the tumour causing the stenosis downward, it was removed from below with a forceps through the external wound. The stricture of the trachea was situated lower down, just above the old tracheal wound, and was due to ulceration, which had followed the original tracheotomy performed two years prior to the laryngotomy. This reduced the lumen of the trachea to about one-third of an inch. The method pursued for curing it was simply to take the cannula out of the old wound and introduce it into the upper wound and through the stricture. At the end of a month the tube was removed, no obstruction to breathing was experienced by the patient, and he soon learned to use his voice like other children.

Syphilitic Stenosis of the Trachea.—Dr. JOHN N. MACKENZIE, of Baltimore, reported the history of a case.

Stricture of the Larynx with extensive Cicatrization from a Case of Ulcerative Tuberculosis.—Dr. J. SOLIS-COHEN, of Philadelphia, presented an interesting specimen showing this condition.

Dr. DELAVAN, Dr. RICE, Dr. INGALS, Dr. LEFFERTS, and Dr. COHEN discussed the preceding papers. It was asserted that O'Dwyer's tubes were valuable accessories to the treatment of laryngeal stenosis. In cases where there was extensive cicatricial constriction any treatment would be only palliative; where the constriction was narrow and membranous, dilatation or cutting might

entirely relieve the patient. Where the stenosis was caused by adhesions between the arytenoids, Dr. Cohen pointed out that laryngeal dilatation would never afford permanent relief.

An Instrument for opening the Larynx without previous Incision of the Skin was presented by Dr. EDGAR A. HOLDEN, which was offered as a possible substitute for tracheotomy and intubation in certain cases.

The paper was discussed by Dr. DALY, Dr. SEILER, Dr. COHEN, Dr. LANGMAID, Dr. LEFFERTS, Dr. BOSWORTH, and Dr. HOLDEN. Some minor modifications were suggested in the instrument, which otherwise was favourably received. The proposed operation was hailed as a valuable contribution to laryngology.

Two Cases of Interest in the Clinic of Laryngology at the Lariboisière Hospital.—A paper contributed by Dr. A. GOUGHENHEIM, of Paris. The first case was one of cancer of the larynx in a workman fifty-six years of age, upon whom tracheotomy had been performed in 1887. Owing to extension of the disease to the wound and down the trachea, it was necessary to have a longer tube, the lower portion of which should be flexible. This was accomplished by Mathieu, of Paris, by making the lower portion of the inner tube in spiral section and movable. A rubber bougie was used to introduce the outer cannula. In spite of the irregularities of the passage, the instrument was easily introduced, and answered the purpose for which it was designed. One notable feature was that the instrument always remained *in situ* when the strings which fastened it round the neck were unloosed, thus differing from ordinary cannulae. The instrument was made of silver.

The second case was one of buccal perforation opening into the maxillary antrum in a workwoman thirty years of age. This was due to necrosis, the result of syphilis.

A communication from Dr. E. J. MOURE, of Bordeaux, France, on *Acute Edema of the Sub-epiglottic Region and Lower Pharynx in a Diabetic Patient* was likewise read.

A paper on *Parasites Inhabiting the Human Nares*, by Dr. D. N. RANKIN, of Alleghany City, Pa., was read by Dr. C. H. Knight, of New York, in the absence of the author.

Election of New Members.—At the close of the morning hour an executive session was held, at which the following members were elected: Dr. S. Oakley Vander Poel, of New York; Dr. F. Whitehill Hinkel, of Buffalo; and Dr. John H. Lowman, of Cleveland, Ohio. There being still one vacancy, it was voted not to adopt the amendment increasing the limit of membership. Dr. J. Solis-Cohen gave notice that he would offer the same amendment at the next meeting.

Dr. CLINTON WAGNER, of New York, presented a paper on *Residence at certain High Altitudes as a means of Cure for Laryngeal Phthisis*. He called attention to the fact that 33 per cent. of all cases of pulmonary consumption are in addition laryngeal, and proceeded to the discussion of the relative advantages of high altitudes, as represented by Davos-Platz and Colorado Springs, and lower altitudes, where the atmosphere is moist and warm. The objections to a high altitude depend upon the dryness of the air and the rapid atmospheric changes, but this may be overcome by instructing the patient to breathe through his nose, and by great care to avoid exposure. Dr. Wagner believes that laryngeal phthisis is invariably secondary. He also reported four cases of this disease cured at Colorado Springs, but believes that climatological changes are of no value in this affection, provided the condition has passed from that of induration into ulceration. In the winter-time such patients in high climates should retire at sundown from the outside air.

Dr. W. C. GLASGOW, of St. Louis, had observed that whenever a consumptive had a throat complication a stay in a high elevation had been injurious. When the throat complication was marked, he recommended a stay in a lesser altitude (say 3000 feet) until this had been relieved before going to the greater altitude (say 5000 to 7000 feet). He did not regard all cases of throat complication in phthisis as being cases of laryngeal phthisis; he did not believe that true tubercular ulceration of the larynx would get well in any climate.

Dr. E. L. SHURLY, of Detroit, confirmed the last observation, and spoke of the difficulty of diagnosis. The discovery of the *Bacillus tuberculosis* had not given the assistance that was hoped, as it might be present in chronic bronchitis and might not be found in well-marked instances of phthisis pulmonalis. He had seen better results following a visit to the sea-shore in some cases than from sending them to the mountains. Each case must be studied by itself.

Dr. LEFFERTS confirmed the statement that there were two kinds of laryngeal ulceration—one due to lowered vitality, the other to tuberculosis; the latter never healed, and in such cases the patient was much better off at home than elsewhere.

A Hitherto Undescribed Neurosis of the Aural Apparatus closely allied to Coryza Sympathetica.—By Dr. JOHN N. MACKENZIE, of Baltimore. In the course of a former article on "Respiratory Vaso-Motor Neuroses" he had called attention to a condition of the aural apparatus closely akin to vaso-motor coryza. He now reported an illustrative case: A lady, aged forty-two, married, had had a peculiar periodic affection of the ear, coming on every summer. She had been reduced in circumstances, thus suffering much nervous strain, though certainly not hysterical. The affection made its appearance suddenly. It recurred about the first day of June each year. Intolerable itching of the auditory canal and corresponding side of the throat was soon followed by swelling of the lining membrane along the auditory canal, until the meatus became completely occluded; the surface of the swollen membrane was intensely sensitive, preventing the employment of topical applications except hot water. This was followed by middle ear inflammation and occlusion of the Eustachian tube. The affection was limited to one side in each attack, although the recurrence usually involved the ear which had escaped the preceding year. The paroxysms of the disease were of almost daily appearance for four weeks, when they disappeared suddenly. During last summer, spent at a "hay-fever resort," she escaped the malady for the first time in twenty-two years.

The case was interesting because it represented a hitherto unrecognized and undescribed affection of the ear, and because it furnishes additional evidence in favour of the doctrine maintained by the author concerning the rôle of the sympathetic in the so-called motor and neuro-vascular affections of the upper respiratory tract, and as a pregnant illustration of the law that "the area in which the vaso-motor reflexes occur will depend, other things being equal, on the seat of the local pathological process, or the localization of the area of peripheral excitability." In this case the process was in the neighbourhood controlled by the otic ganglion, while in the ordinary form of conjunctival and nasal affection, the vaso motor supply was obtained through the ophthalmic. If these affections were closely studied we might gain some light upon the pathology of the sympathetic nerves.

Dr. SHURLY, Dr. SAJOUS, Dr. ALLEN, and Dr. MACKENZIE discussed this communication.

Dr. BRYSON DELAVAN followed with a paper entitled *Further Investigations as to the Existence of a Cortical Motor Centre for the Human Larynx*, and referred to a paper read by him during the Eighth International Medical Congress at Copenhagen. He believes that this centre exists in the region of Broca's third convolu-

tion, and cited the opinions of Landois and Garel, which supported this view. Garel saw a case of laryngeal palsy, with a lesion in this neighbourhood; but in a case examined by Dr. Delavan no cortical lesion could be found on macroscopical examination except marked atheroma of the bloodvessels. Microscopical examination of the specimen is in progress.

Internal Œsophagotomy, with Report of Successful Cases.—Dr. JOHN O. ROE, of Rochester, N. Y., read a paper on the subject. In case of cicatricial constriction of the Œsophagus, the author considered it safer to make several linear incisions two millimètres in depth in the constriction before attempting dilatation than to attempt dilatation without it. When the cicatrix was horseshoe shaped and did not include the entire circumference of the Œsophagus, attempts to force a probang through the constriction might produce rupture of the healthy portion. The preferable plan was to make incisions on each side and at the back before attempting dilatation.

Among those taking part in the discussion were Drs. Rice, of New York; Ingals, of Chicago; Langmaid, of Boston; Sajous, of Philadelphia; and Delavan, of New York. Dr. Rice advocated cocaine previous to the introduction of the Œsophageal bougie. Dr. Sajous thought this dangerous, because the anæsthesia prevented the patient from aiding in the direction of the instrument, and eliminated the useful symptom of pain. If a softened area existed near the growth, it was readily punctured under such circumstances.

Dyspepsia as reflected in the Mucous Membrane of the Upper Air Passages.—Dr. BEVERLEY ROBINSON, of New York, by appointment, opened the discussion upon this subject, and in the course of his remarks cited a number of cases in which digestive disturbances were accompanied by disorders of the upper air-passages, and others in which local affections of the naso-pharynx and larynx disappeared when the condition of the digestion or diet was corrected.

Dr. SHURLY did not accept the statement that naso-pharyngeal disease caused dyspepsia, because many cases were entirely free from gastric symptoms, but he did believe that dyspepsia, plethora, and sedentary habits of life were frequent causes of naso-pharyngeal catarrh.

Dr. W. H. DALY, of Pittsburgh, had had much experience in the use of general constitutional remedies, such as strychnine and calomel, in treating nasal disorders, and indorsed the remarks of the previous speaker with reference to the necessity of correcting the patient's habits of life.

Dr. ROBINSON closed the discussion with the remark that it was important for every specialist to occasionally have his work criticised from the standpoint of the general practitioner, in order to prevent him from becoming too exclusively devoted to special methods of treatment.

The Anatomy of the Nasal Chambers.—Dr. HARRISON ALLEN, of Philadelphia, made a highly valuable communication on this subject, and illustrated his remarks by exhibiting skulls and wet specimens of the human head in section.

Dr. FRANK BAKER, of Washington, remarked that it was possible that the facts noted by Dr. Allen as to the occurrence of irregularities and deviations within the region anterior to a vertical plane passing through the anterior ethmoidal foramina might have a morphological significance. That region was formed by the orbito-nasal process of the embryonic cranium, and was at first a cartilaginous capsule of considerable relative size, the different sinuses—maxillary, frontal, ethmoidal—being formed by vesiculation and absorption. It was a region of peculiar physiological action in this respect. It would seem probable that, on further examination, it would not be limited by a plane as arbitrarily drawn as the one suggested by Dr. Allen.

Notes on a Case of Nasal Caries, complicated with Meningitis, successfully treated by means of the Surgical Drill. By DR. WILLIAM C. JARVIS, of New York. The case was one of a man with a distinct specific history producing very severe nasal symptoms accompanied by caries of the bone, and preceded by the complete destruction of the mucous membrane covering the parts. Pain was excessive and so constant that the patient had to be kept constantly under the influence of anodynes. There was also much headache, tinnitus aurium, with hyperæsthesia of the scalp. The secretion was excessively fetid, and life to the patient was a misery. There was great emaciation, weakness, and inability to perform any of the ordinary business of life. The treatment consisted first in the administration of anodynes, morphia to relieve the pain, the use of large doses of iodide of potash, and the disinfection of the nasal chambers by the thorough circulation through them of antiseptic solutions. Notwithstanding these precautions, meningitis developed, and the case became serious. The amount of the iodide was increased from 20 to 60 grains three times a day. This was continued for some time, the man rapidly improved, and soon recovered sufficiently to permit of operative procedures directed toward the alleviation of the local disease. This was accomplished by the employment of a special surgical drill, by means of which the dead bone was removed.

The Treatment of Atrophic Rhinitis by the Galvanic Current.—Dr. J. H. HARTMAN, of Baltimore, reported successful results from this method.

A Photographic Study of the Laryngeal Image during the formation of Registers in the Singing Voice.—Dr. THOMAS R. FRENCH, of Brooklyn, N.Y., read a paper with this title, using the calcium light to exhibit the photographs upon the screen. The exhibition was a very fine one, and, although in the discussion which followed the lecture there was some want of agreement as to what constituted a register and the functions of the larynx in forming it, there was only one opinion as to the value of Dr. French's work.

Congenital Bony Occlusion of the Posterior Nares in a Child, relieved by the Surgical Drill.—Dr. CHARLES H. KNIGHT, of New York, gave a full bibliography of this subject, and reported an interesting case, a feature of which consisted in the fact that the operation afforded an opportunity for the development of the latent olfactory sense.

Dr. CLARENCE C. RICE, of New York, read a paper upon *Antiseptic Nasal Surgery*. He had come to discard tampons of antiseptic material, and the insufflation of antiseptics in powder, and relied chiefly on solutions, to be used by the patient in spray, from an atomizer. He conducted his operations under antiseptic precautions, and believed that he had obtained more speedy healing of tissues and freedom from untoward results in this way. He rarely had seen troublesome hæmorrhage, but this was probably because he operated, removing rather less tissue than many. He usually kept his patient in his office for some time after operation: a cotton plug was inserted into the nostril, to cause coagulation which would extend to the point of operation and check bleeding; the application of cotton directly to denuded tissues he did not favour.

Dr. HARRISON ALLEN, of Philadelphia, employed antiseptic precautions in nasal surgery, but had not observed any marked improvement in his results.

Dr. CHARLES E. SAJOUS, of Philadelphia, had two cases in his practice before he employed antiseptics which were apparently septic infection; since employing antiseptics he has had no trouble.

Dr. FRANK DONALDSON, of Baltimore, thought carbolic acid the best agent for promoting the healing of tissues after nasal operations.

Dr. E. FLETCHER INGALS, of Chicago, prefers carbolic acid in about four per

cent. solution. After operating he insufflates boric acid and iodoform into the nostril; to control hemorrhage he plugs the nose with strips of bichloride gauze soaked in a syrupy liquid composed of gallic, tannic, and carbolic acids, in glycerine; this plug he allows to remain from twelve to fifteen hours.

The Treatment of some Forms of Chronic Laryngitis.—Dr. CHARLES E. SAJOUS, of Philadelphia, read a paper in which remarkable results were reported from touching the thickened vocal cords by means of a protected applicator slightly coated with chromic acid. He had found cocaine objectionable in these cases, since its prolonged use led to increase of secretions from the mucous membrane. Cases were reported of complete restoration of voice under the treatment indicated.

The Cure of the Falsetto Voice.—Dr. J. C. MULHALL, of St. Louis, read a communication on this subject. The paucity of literature upon the subject had led to the presentation of this paper, which contained notes of several cases in which a falsetto voice was restored to the normal by voice-training and instruction in elocution. Dr. J. SOLIS-COHEN, Dr. JARVIS, Dr. GLASGOW, Dr. LANGMAID, Dr. DELAVAN, Dr. LINCOLN, and Dr. KNIGHT discussed the paper, the conclusion being that whereas some cases had been encountered which were considered intractable by some, others had been successful in curing all cases by teaching the patient the proper register for his voice and by vocal drill.

Subglottic Laryngeal Enchondroma.—Dr. E. FLETCHER INGALS, of Chicago, reported a case.

Laryngeal Papilloma from the Body of a Child.—Dr. S. W. LANGMAID presented a specimen. It almost identically repeated the case which was shown by an illustration in the well-known work of Causit, published in 1867.

Angioma of the Larynx.—Dr. W. C. GLASGOW, of St. Louis, reported a case. Coloured drawings of the appearance of the growth *in situ* and in section were presented. Attention was called to the peculiar translucent appearance of the growth, through which the cord could be clearly seen.

This communication was discussed by Dr. J. SOLIS-COHEN, who spoke of four cases that he had published.

Primary Sarcoma of the Tonsil.—Dr. ALEXANDER MACCOY, of Philadelphia, reported the history of a case. The rarity of reports of this affection was noteworthy, although the last two years showed a number of cases, which was probably to be explained by an increasing number of observers and by improved methods of study. To this paper was appended an epitome of cases recorded, so far as accessible to the writer.

In this case prompt surgical interference was not instituted, because (1) of the rarity of the case and want of a clear diagnosis; (2) the early symptoms being like simple tonsillar inflammation, preventing diagnosis, which was still more interfered with by absence of the patient from the city; (3) a tardy report from the microscopist, to whom a part of the tissue removed had been referred for examination.

Donovan's solution was administered in rather large doses (14 drops three times a day) for a number of months, without gastric derangement or constitutional injury. Galvano-cautery, lactic acid, and iodine and carbolic acid applications were used. The latter combination (each crystallized 1 to 4) appeared to destroy the *fretor* most effectually during the stage of sloughing. The duration of this case was one year.

Etiology, Surgical Pathology, and Treatment of Hemorrhage after Tonsillectomy. By Dr. D. B. DELAVAN.

Varieties:—(1) Arterial: from division of one or two large arterial branches. (2) Arterial: from division of numerous arterial twigs. (3) Venous: from divi-

sion of small plexus of veins which lie below and outside of tonsil. (4) Capillary, or general: from presence of hemorrhagic diathesis. First two varieties most common. With them age an important factor. Of eight cases known to the author, the youngest was 24; oldest 34; average age 28 years. All were males. In all examined microscopically there was marked hyperplasia of fibrous stroma of tonsil, with dilatation of the arterial branches. This explained their failure to contract.

Blood supply of tonsil, excepting for ascending pharyngeal, derived almost exclusively from external carotid. Internal carotid too remote to be itself injured, while in cervical section it gives off no branches. Not an authentic case on record where tonsillotomy, performed for simple hypertrophy and by modern methods, has proved fatal. The study of cases of severe arterial hemorrhage shows (1) that ligation of common carotid, in most instances, has failed; (2) that bleeding has continued, in spite of all after efforts to stop it, until the patient has fainted, when it has ceased, and, as a rule, has not recurred. This because (1) ligation of common carotid does not stop collateral circulation through Circle of Willis, and (2) because arterial tension and cerebral hyperemia are relieved.

Treatment.—Ligation, except of external carotid, useless. In variety (1), torsion, ligation, or cauterization of vessel. In (2), if other means have failed, opium; constriction of extremities; upright position of head, if possible; ligation of base of tonsil; encouragement of syncope. In (3), pressure; direct application of cold (or heat). In (4), pressure; cold; styptics.

Effects of varying rates of stimulation on the action of the Recurrent Laryngeal Nerves. By FRANKLIN H. HOOPER, M.D., Boston.

In a preliminary communication Prof. H. P. Bowditch and Dr. Hooper recorded the fact that the rate of stimulation of the recurrent laryngeal nerves was an important factor in producing an opening or closing of the glottis. Later investigations had established the following conclusions:—

1. It requires a more rapid rate of vibration to produce a closure of the glottis in cats than in dogs.
2. In cats the rates of stimulation necessary to effect a closure must be from 70 to 80 a second; in dogs from 30 to 40.
3. Rates slower than 70 a second produce in cats an opening of the glottis; in dogs rates slower than 30 produce opening.
4. The intensity of the current influences the effect of varying rates of stimulation.
5. Weak currents, with slow rates, produce opening.
6. By increasing the rates, the intensity remaining the same, closing results.
7. By increasing the intensity, the rate remaining the same, closing results.
8. Closing is produced more readily by increasing the rate than by increasing the intensity.

Mr. VICTOR HORSLEY, of London, being invited to open the discussion, expressed his gratification at hearing the report just presented. Dr. Hooper had been the first to show the effects of certain drugs upon the larynx, and now the first to demonstrate the different rates of stimulation upon the larynx. It especially interested the speaker to know that he had obtained a repetition of the phenomena in the cat which Mr. Horsley had previously observed. One of the results of these experiments was the determination of the existence and location of a cortical centre for the larynx in the cat. Contrary to what usually occurred in the dog, it was found that stimulation of this cortical centre produced abduction of the vocal cords, and it was consequently very interesting to the speaker to learn that Dr. Hooper had observed the same thing by stimulating the recurrent nerve that Dr.

Semon and he had obtained by stimulating the cortex. He urged Dr. Hooper to extend his investigations to the cortex, and to repeat them upon monkeys, and thus independently arrive at results which might test observations made by others.

Dr. H. P. BOWDITCH, of Boston, was especially interested in the reverse action of certain laryngeal muscles when the intensity of the stimulation was increased. The first explanation of this might be that the opening muscles were more irritable but less powerful than the closing muscles. Light stimulation, therefore, would affect the former and not the latter, but upon continuing the stimulation, the latter, being stronger, would close the larynx in opposition to the weaker opening muscles. But another explanation must be given of the different effect produced by altering the rate of stimulation. These experiments had been begun in order to investigate the results of Wadenski obtained by stimulating the muscles of the leg, in connection with Ritter's well known experiments upon the sciatic nerve. They had never been able to confirm the results of Wadenski. The speaker asked Mr. Horsley if he had any theory to explain the varying action of the muscles of the larynx under different rates of stimulation.

Mr. HORSLEY said that he had none to offer. In his own experiments upon the recurrent laryngeal nerve he had observed in a few instances that different effects were produced when the electrodes were to the inner side of the nerve than when they were placed upon the outer side.

Officers for the ensuing Year:—Dr. E. CARROLL MORGAN, of Washington, president; Dr. W. C. GLASGOW, of St. Louis, and Dr. CHARLES E. SAJOUS, of Philadelphia, vice-presidents; Dr. D. BRYSON DELAVAN, of New York, secretary and treasurer; and Dr. THOMAS R. FRENCH, of Brooklyn, librarian. The next place of meeting is at Washington, and the time the last Tuesday of May, 1889.

D. Bryson Delavan.

NOTE.

PROF. MASSEI, our eminent collaborateur, has just been appointed Extraordinary Professor of Laryngology at the University of Naples.

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THE TREATMENT OF PAPILLOMATA OF THE
LARYNX BY MEANS OF THE CURETTE.

A CLINICAL NOTE.

BY DR. F. MASSEI (Professor of Laryngology at the University
of Naples).

ALL who are well acquainted with laryngoscopy know by experience that the local treatment of papillomata of the larynx is not nearly so simple a matter as it appears at first to be. Laryngeal papillomata belong to the class of neoplasms clinically called "benign," and, in fact, general health is not impaired by their presence, but recurrence and increase are so commonly met with that, notwithstanding their benign character, they may become dangerous to the patient.

We can never promise a certain result from what we see, and it should always be borne in mind that the growth may not only be reproduced, but, further, that it may undertake such general development, notwithstanding diligent treatment, as to endanger life if tracheotomy be not performed.

These considerations, and others which I desire to discuss further on, are well known to many practitioners, but are not sufficiently dwelt upon in special text-books, and an exact idea of the course of, and the treatment required by, all papillomata is not given to the young practitioner, who is consequently often deceived, and may find himself compromised if he does not surround himself with precautions, and hold himself reserved as to the length of time during which treatment should be continued, and the dangers of laryngeal stenosis.

At the commencement of my practice, I found an exaggerated German opinion prevalent, that the treatment of laryngeal papillomata was only to be accomplished by tracheotomy. At a later period, I was enabled to appreciate the value of this opinion, and, though I do

not desire to adopt the same conclusion entirely, the idea of coincident tracheotomy embraces two interesting pathological conceptions—(1) that of the difficulty of local treatment; (2) that of the possibility of complete cure only after obtaining rest for the larynx.

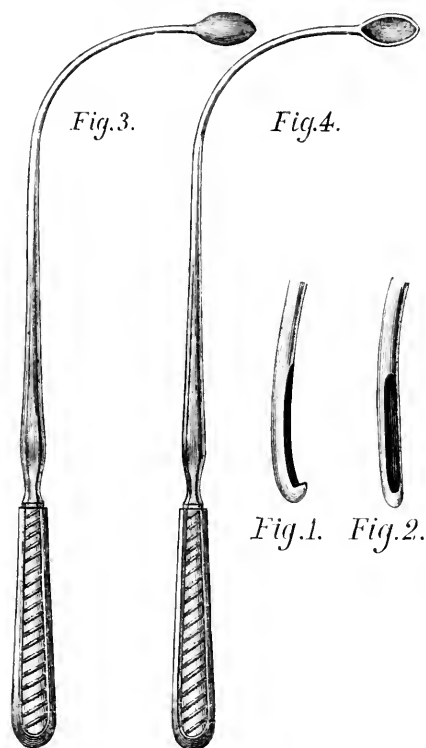
In regard to this latter consideration I may add, indeed, that recurrence, and increased development of papillomatous growths, does not occur at all periods of the disease, and I may here take the opportunity of more fully stating my views with regard to this point.

It is generally admitted that papillomata may be circumscribed or diffused through the whole cavity, but it is not generally conceded that the first form may sometimes become transformed into the second. The movable tumour, which we look at with the assurance of completely removing by means of laryngeal forceps, becomes in some not rare instances very diffused, and obliges one to continue the treatment for a very long time, or even to perform tracheotomy.

I have met with cases of this kind, and do not forget the experience; and now, even in the circumscribed forms, I claim a long period for treatment, and keep my patients for a long time under observation. The tendency to this, which cannot properly be called recurrence, but is rather further development, continues, when present, for a certain period of time, but later on ceases so completely that remains of the tumour may be left unremoved without fear, and with confidence of their ultimate disappearance. In young persons, and in patients of plethoric constitution, such an evolutionary phase ought not to be forgotten, when such a patient confides his treatment to a physician. So convinced do I feel of these facts, that I can place the limit of this period at from one to two years, and in rare cases at 30 months. I do not relate the cases which have come under my notice, only because I think such is unnecessary, and the facts are so well known to the profession that it is merely necessary to call attention to them. I do not exactly comprehend the nature of this evolutionary phase, unless one terms it "recurrence." Strictly speaking it is not a reproduction which takes place, but an increase in the growth (recrudescence), which at first appeared to us in a more circumscribed form. I am not discussing whether papillæ may be reproduced after removal, and I mean only that in the proximity of those enlarged or newly-formed papillæ, which can be seen in the laryngeal mirror, there are also others which cannot be seen with the naked eye, and in which the hypertrophic and hyperplastic process begins, and under the local stimulation commences to grow, and complete its development in a short time.

I have dwelt upon these points because I consider them of great importance in the justification of the plan of treatment which I have adopted for some time, and with complete satisfaction. If we arrive at a judgment without prejudice, we must confess that neither extirpation with forceps, nor local applications of astringents, caustics, or cautery are followed with complete success in any cases. I have operated with many kinds of forceps, English, French, and German, and have had made in Italy several special forms of instruments. I have also tried alum, tannic acid, sabine powders, nitrate of silver, perchloride of iron, absolute alcohol,

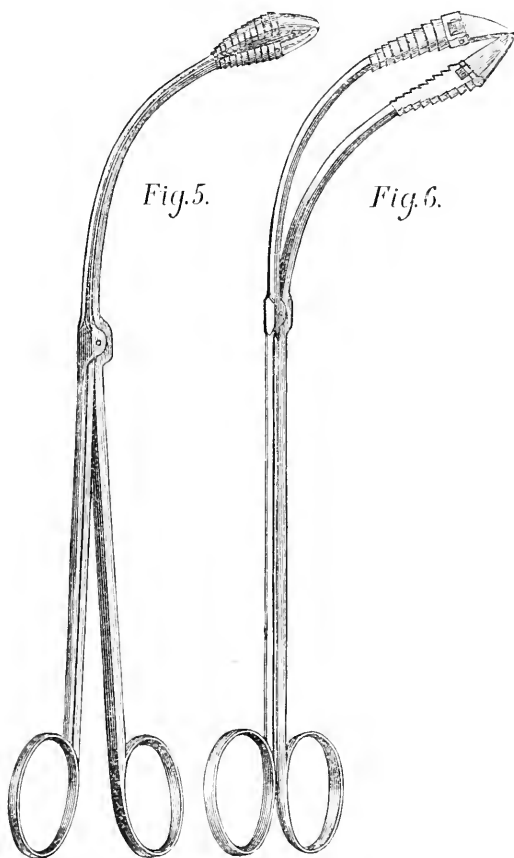
chromic acid, and the galvano-cautery; but I cannot conclude to have ever seen any evident benefit follow their use, which, however, I have always found in connection with forceps operations. The good effects are evident when the retrogressive phase has commenced—that is, when spontaneous recovery (after extirpation) is to be hoped for. But we must confess that in some cases forceps cannot grasp the little sessile infiltrating growths, even when changed into multiple forms. I bear in mind a



case in which I was daily pursuing an energetic local treatment, and in which I was compelled to abandon forceps and perform tracheotomy in haste. This was to me a singular experience, since in 20 years of practice I have met with 295 cases of laryngeal growths, the greater number of which I have operated upon with success. In such circumstances it is not a growth with which we have to do, but an infiltration. There is no prominent part of the tumour which can be seized with forceps, and the unsuccessful attempts tend to an opposite effect—namely, flattening the rough into a polished surface.

The necessity of using different instruments is imposed upon one, and

I have obtained in these cases splendid results with the use of *curettes*. I have no desire to appropriate to myself a method which is not mine (I can truly say which is old), but I insist on the great advantages obtained by curettes in infiltrated, diffused papillomata, and even in cases of subglottic tumours or small growths situated on the edges of the



vocal cords, where forceps cannot accomplish the removal. Von Bruns, in 1865, in his remarkable work, "*Die Laryngoskopie und die Laryngoskopische Chirurgie*," speaking of laryngeal operations (s. 2, p. 225, under the head of "*Schaber oder Kratser*"), gives illustrations of the instruments he recommends, and which I reproduce here (figs. 1 and 2), and says :—

"This instrument, which may be called a curette ('*kratser oder schaber*'), is especially useful for scraping off small neoplasms of soft

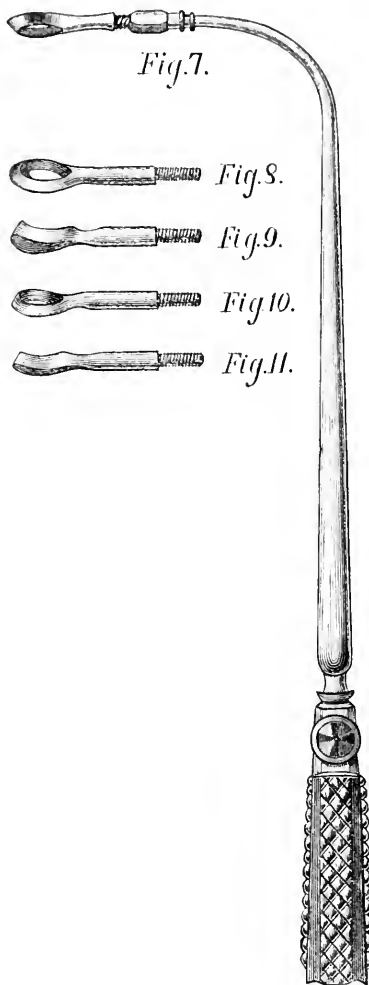
"consistence from their underlying tissues, such as exuberant granulations, and especially papillomatous formations, which are too small to permit of the snare, and, moreover, generally tend to multiplicity or to diffusion."

I give to curetting a greater significance, but have no doubt that the frictions of Bruns have been too early dropped out of sight, and deserve a greater appreciation. The following consideration of the same author is particularly valuable:—

"It accomplishes not only in addition the death of the incompletely divided and crushed particles of the new growth, but the application of caustics to the portions of the growth remaining is thus facilitated. It even makes it possible for the caustic to reach the origin or the roots of the neoplasm in the mucous membrane."

And this seems to me to be one of the greatest advantages to which our attention is to be directed in the treatment of papillary growths. In those cases in which I have used the curette I have succeeded in obtaining recovery in a much shorter time, and often without recurrence. Evidently it is not only the projecting portions of the mucous surface which we remove, but the deeper layers, and the *matrix* of the growth also.

I may mention that since February, 1887 (*see* "Lo Sperimentale," p. 133), Dr. G. Ferreri, assistant at Professor de Rossi's clinic for diseases of the throat, nose, and ears at Rome, in a note, entitled "Treatment of Papilloma of the Larynx," insists upon the opportunity of a quick method, and gives illustrations (*see* figs. 3 and 4) of the laryngeal spoons devised by Prof. de Rossi, which are very similar to Volkmann's spoons, and also of others which are scrapers or scarifiers (*see* figs. 5 and 6). The action of these instruments can be understood from the illustrations, and I may add that a special indication for their use is found in cases of small growths, and in cases where they are situated in more remote places, such as the trachea, and they are preferable to Voltolini's sponge,



which can also render service in cases of small or pedunculated growths.

I do not propose to criticise these instruments, as I have another intention in view, namely, that of giving credit to a well-known but forgotten method. As a rule, however, I prefer smaller instruments well applied, which are well supported by patients, and for this purpose I have found Heryng's curettes (the same as proposed for the treatment of laryngeal phthisis) very serviceable and answer all purposes (*see* figs. 7, 8, 9, 10, 11). I have operated on large and small papillomata with these instruments, and have always found them the best. Voltolini's sponge cannot be adopted for the treatment of diffuse papillomata, with the same certainty as curettes, which not only grasp but eradicate the tumours. I have succeeded in removing subglottic growths and multiple vegetations on the free edges of the vocal cords, with a simplicity which is especially assisted by previous cocaineisation in the usual manner. I have also seen recorded in this Journal and in the "*Annales des Maladies de l'Oreille, du Larynx, &c.*," January and November, 1888, that Wroblewski has operated in the same manner upon a large papillary growth, which, springing from the lower part of the epiglottis, almost completely closed the *aditus laryngis*, leaving only a very small space through which a probe could be passed. Tracheotomy was performed, and the tumour being removed with Heryng's cutting curette at one sitting, the tracheal cannula was removed at the end of twenty-one days. The author believed that he was the first to employ the curette, but apart from this, his observation is of great interest in relation to, and support of, what I have said upon this subject. Heryng's curettes appear to me to be preferable to those of Bruns and de Rossi. Those of Bruns are especially indicated for small growths deeply situated, those of de Rossi are too large and not very serviceable for infiltrating growths. In conclusion I may formulate my opinions as follows:—

1. That the so-called "Curetting" deserves greater appreciation than it obtains at present ;
 2. That it is very serviceable for cases of growths situated in the subglottic region, on the vocal cords, or upon their free edges ;
 3. That besides the facility of operation, portions of the tissue are successfully removed from which the growths originate, and for this reason, and also for the reason that more direct after-treatment by local applications is permitted (lactic acid is preferable), this method gives greater security against recurrence, in the sense I have indicated, and which is the most serious result to be feared in the treatment of laryngeal papillomata.
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ENLARGED PHARYNGEAL TONSIL IN THE AGED.

A CLINICAL NOTE.

BY DR. J. SOLIS-COHEN (Philadelphia, U.S.A.)

ENLARGED pharyngeal tonsil in the mature adult is infrequent. In the early part of 1888 I was consulted in reference to an enlarged thyroid gland by a healthy and rather robust lady of seventy years of age, from two of whose nieces, sisters, I had, in 1870, removed enlarged pharyngeal tonsils with Mackenzie's sharp-cutting laryngeal forceps. Having learned on inquiry that the young ladies had had no further trouble of throat, nose, or of pharynx since that treatment, I thought that I would examine the vault of the aunt's pharynx for curiosity, when, to my surprise, I saw a moderately enlarged pharyngeal tonsil, which gave no annoyance, and with which I did not interfere. In December this lady called to report that the enlarged thyroid gland had gone down entirely under the treatment I had advised—namely, inunctions with a mild ointment of the red iodide of mercury, with the parts exposed to the rays of the sun, or to those from a large coal-oil lamp, and the internal administration of iodoform in pills of one grain, with one grain of ferric sulphate done up in glucose; and on examining the vault of the pharynx I again noted the enlarged pharyngeal tonsil.

Might I add that the term tonsil is not definitively appropriate to collections of lymphoid structures other than those between the palatine folds. Those analogous structures, possibly there in the pharynx, and certainly in the tongue, are, with Prof. Leidy, of Philadelphia, better termed lymphoid nodules.

NEW INSTRUMENTS, THERAPEUTICS, AND DIPHTHERIA.

ZWAARDEMAKER (Utrecht).—*Apparatus for Estimating the Intensity of Smell.* *Berl. Klin. Woch.*, No. 77, 1888.

THE author has constructed an olfactometer, of which he gives a description, and by means of which the intensity of the sense can be measured.

Michael.

WOODWARD (Worcester).—*New Oro-Nasal Inhalers, and Hay Asthma.* *British Medical Journal*, July 28, 1888.

HE believes that most cases of hay asthma begin in the nose, and recommends the use of an oro-nasal inhaler.

Hunter Mackenzie.

SHAW-MACKENZIE, JOHN A. (London).—**An Inhalation Respirator.**
British Medical Journal, June 16, 1888.

AN illustrated description of a respirator made of wire-meshed gauze, and possessing no new feature of importance.
Hunter Mackenzie.

WATSON, PAUL E. (Bristol).—**Combined Nasal and Oral Respirator.**
British Medical Journal, June 16, 1888.

THIS instrument is made of celluloid, and differs in no material respect from the oro-nasal respirators already in use.
Hunter Mackenzie.

PEARCE, T. FREDERICK.—**Trachea Inhaler for use after Tracheotomy.** *British Medical Journal, June 30, 1888.*

AN illustrated description of an apparatus designed to warm, and, if necessary, medicate the air before it reaches the trachea. It is made by Messrs. Arnold & Sons, West Smithfield.
Hunter Mackenzie.

BLAIR, J. M.—**Improved Tongue Depressor for Children.** *New York Acad. of Medicine, November 27, 1888.*

THE author exhibited a tongue depressor consisting of a flat, slightly convex blade, the free end of which was narrowed and curved quite over on itself, forming a blunt hook, by which the epiglottis could be pulled forward on to the base of the tongue at the same time that the tongue was depressed. Thus a full view of the pharynx and larynx could be obtained in children who could not control themselves so as to make examination by the usual methods at all satisfactory.

R. Norris Wolfenden.

HOPE, G.—**Improved Instruments for Deflection of the Nasal Septum.**
New York Acad. of Medicine, November 27, 1888.

THE author showed two forceps designed for correcting this deformity, one of which had between the flat faces of its jaws a small pin received into a socket at its free end. By punching out the outline of the displaced bone at short intervals it was more easily restored to its normal place by the other forceps. The latter had smooth flat jaws which were set so as to grip firmly any body, however thin, which came between them when closed. He had found it much more efficient than the Adams forceps on this account.

R. Norris Wolfenden.

DRYSDALE, C. R. (London).—**High Altitudes and Consumption.** *British Medical Journal, June 2, 1888.*

THE author recommends residence at high altitudes—*e.g.*, Davos or Colorado.
Hunter Mackenzie.

EDITOR, BRITISH MEDICAL JOURNAL.—**Cigarette Smoking and Malignant Disease of the Throat.** *British Medical Journal, August 25, 1888.*

AN annotation in which the opinion is expressed that the condemnation of Egyptian or Turkish cigarettes as causes of cancer is not justified.

Hunter Mackenzie.

IRVING, JOHN (Leytonstone).—**Tea and Teeth.** *British Medical Journal*, June 2, 1888.

THE writer's experience tends to show that tea has nothing whatever to do with the degeneration of teeth, and that heredity plays a conspicuous part in the production of dental caries.

Hunter Mackenzie.

HEWKLEY, FRANK (London).—**Fugitive Iodism; œdema of the Eyelids.** *British Medical Journal*, June 2, 1888.

A PERSON with a decided catarrhal dyscrasia was suddenly attacked with fugitive œdema of the eyelids sequent upon a free catarrhal outpour from the nasal mucous membrane. The author ascribes this to extension of the catarrhal process, or to an impediment to the efferent lymphatic circulation caused by the turgidity of the nasal mucous membrane.

Hunter Mackenzie.

BARNES, EDGAR G. (Eye, Suffolk).—**An Address on the Etiology of Diphtheria.** *British Medical Journal*, July 28, 1888.

AN admirable paper, illustrated by charts, and by maps, showing the distribution of diphtheria and scarlet fever in England and Wales.

The paper is founded upon a study of 50 separate outbreaks of the disease, extending over a period of 13 years, and embracing 223 cases, of which 40 were fatal.

The author remarks that there are facts in outbreaks of diphtheria which tend to dissociate it from other infective diseases, such as small-pox and scarlatina, and to show that it may arise from certain combinations of filth and insanitary conditions, as well as from infection from a pre-existing case.

The first point to which attention is directed is the geographical distribution of the disease. It appears there are certain counties in England in which the death-rate from diphtheria is invariably high, and others in which it is just as invariably low. In others it is neither low nor high. A marked contrast is seen in this respect between diphtheria and a typical infectious disease such as scarlatina, for whilst the former is most prevalent in thinly populated counties, the latter is most met with in populous centres. The author attributes this to dampness of the soil, caused by want of suitable systems of drainage, and combined with filth in the form of decomposing animal matter: these are mostly met with in country districts.

Diphtheria has a tendency to recur in the same district, and even in the same houses, year after year.

A cold, clay subsoil appears to favour the development of the disease.

The other favouring conditions noted were: impurity of the drinking water, cesspools, defects in household drainage, proximity to the house of uncleanly animals, and accumulations of manure. In four outbreaks only was the disease traced to direct infection from without, but when once a case had occurred, its infectious character was well marked. In 38 out of 46 outbreaks, obvious sanitary defects were detected in the houses first affected.

Diphtheria is more prevalent during the winter months. The author

has been unable to detect any relation between its prevalence and the rainfall. He could trace no connection between diphtheria and disease in domestic animals, or with milk-infection.

The author details several individual outbreaks, illustrating the dependence of diphtheria on filth, and the risks of outbreaks and infection at school.

In one case only could it be said that the wind carried the infective particles of the disease.

Outbreaks associated with obvious sanitary defects are shown to be more severe than when due to simple infection.

The author is of opinion that the disease is gradually developed by insanitary conditions, and is not due to a definite specific germ. In support of this view he affirms "that in other specific diseases we never find a preceding period of an undeveloped disease, whereas, in outbreaks of diphtheria, it is not uncommon to find that sore throats have prevailed for some time previously, which have not presented the true characters of diphtheria."

Hunter Mackenzie.

PAIRMAN, T. W. (Auckland).—**The Treatment of Diphtheria in Children by Antiseptic Steam.** *Edinburgh Medico-Chirurgical Society, Dec. 19, 1888.*

THIS consisted in the use of ordinary steam and the evolution of sulphuric acid in the sick room.

Prof. CHIENE expressed his sense of the value of Dr. Pairman's paper. He did not quite understand if the child was completely tented in.

Dr. CRAIG said he believed Dr. Pairman's usual plan was to place a large umbrella opened out at the head of the child's bed, and to put a sheet over this extending to the foot.

Prof. SIMPSON, in the course of a few remarks, pointed out that the title of the paper was somewhat misleading. It was not antiseptic steam, that was to say steam containing some volatile antiseptic, that was used, but ordinary steam and sulphur fumes. In the first case he understood it was steam alone that was used, and this did well. The sulphur fumes were introduced into the treatment of the other cases. He would have been glad had there been a little more careful analysis of the various elements in the treatment.

Dr. P. A. YOUNG was interested to hear of Dr. Pairman's success in the treatment of cases of diphtheria by steam. He had himself treated cases in this way for at least twelve years. He had been using it generally for some time, but he had a very bad case in a young child, and found that it received the greatest benefit by being kept in an atmosphere of steam for four or five days, after which it recovered perfectly. He was perfectly certain that they possessed no remedy so efficacious. Superadded to it he often used antiseptics. Sometime after having this case he read an article by a French physician, who said the action of the steam was to produce a layer of healthy pus cells between the false and the mucous membranes. In this way the false was thrown off, and further absorption into the system prevented. Whooping-cough might be efficaciously treated in the same way, various antiseptics being added to the steam.

Dr. M'BRIDE was of opinion that steaming with antiseptics was not likely to be of much use. Strong antiseptics applied in the form of sprays and pigments constantly failed in the treatment of diphtheria. It was hardly to be expected that a dilute volatile antiseptic would succeed in such cases.

Dr. THOMS (Crieff) said he could not trust to volatile antiseptics. He found steam very valuable if applied before the disease extended to the larynx. When this occurred he had been uniformly unsuccessful. He frequently used as a pigment a strong antiseptic containing perchloride of iron and sulphurous acid. He found a pigment of boroglyceride in glycerine very beneficial and more pleasant to children. Sulphur was a very old remedy, and flowers of sulphur were constantly used in his district.

Mr. CATHCART observed that in the discussion there was no confirmation of a statement he had read some time ago that steaming, and particularly over-steaming, did harm. He was of opinion that weak volatile antiseptics constantly applied might prove efficacious where the stronger antiseptics, applied intermittently, failed. While much was to be said for steaming, it was not to be supposed, as one might imagine from what had been said, that it was sufficient—that the patient only required to be steamed to get well. Constitutional treatment was also necessary. One remark made in the paper that in different epidemics the fungus seemed to choose different sites was, he thought, an argument in favour of the non-identity of croup and diphtheria.

Dr. WEBSTER desired to add his testimony to the value of steaming in these cases. He was somewhat disappointed with the paper, having been led to believe from the title that they were to hear of some new and successful antiseptics from the Antipodes.

Dr. ALLAN SYM said he had lately to deal with an epidemic in his district. He treated his cases with pigments of boroglyceride in glycerine, and also gave perchloride of mercury internally. Having, however, taken the disease from a patient, he experienced so much pain in swallowing that he had given up internal remedies, and simply painted the throats with the boroglyceride solution.

Mr. MAXWELL ROSS said that in more southerly parts of New Zealand, particularly round about Dunedin, the treatment of diphtheria by blue gum steam was exciting some interest, and some very successful results were claimed for it. He believed that a gentleman had gone from Dunedin to some of the larger Australian towns to demonstrate its value, but he had been disappointed in the leaves of the blue gum grown in Australia, which he did not find give such good results. Dr. Sym, he understood, had given up internal administration of remedies, because of the pain in swallowing. He did not think pain was a symptom of diphtheria, and, if it occurred, considered it was due to some accompanying inflammation, such as tonsillitis. He thought it would be a mistake to give up internal treatment, and, seeing that many of these cases died of cardiac failure, he asked if any member had experience of digitalis in diphtheria.

Dr. JAMES RITCHIE said he wished Dr. Pairman had given his

experience of the relative merits of steam and of the antiseptic. The speaker used steam in croup; antiseptics in diphtheria. But in children the difficulties connected with the use of pigments and sprays were so great, that some efficient method to replace these was very desirable. Dr. Pairman had recorded certain facts, and made certain deductions which might be criticised, but Dr. Ritchie would make trial of antiseptic steam. The speaker never used strong caustics in this disease. He found pain to be a very variable symptom, and he believed it to be due to inflammation apart from the diphtheritic process—at least, not a necessary part of it. He believed that the disease was primarily local, and secondarily constitutional from poisoning of the system by ptomaines. Death from cardiac syncope was only one of the forms of post-diphtheritic paralysis.

Mr. MILLER asked Dr. Sym if he had any experience of steaming, and if he had found it of any help in his own case?

Dr. SYM replied that it was not used.

Mr. MILLER, continuing, said he had long wished to have a method of treatment devised which would prevent the necessity for tracheotomy. No treatment had hitherto proved satisfactory in that respect; and, when discussing modes of treatment which appeared to be attended with success, they must remember that in epidemics of any kind they might have a series of fatal cases followed by a long run of successful ones, recovering apparently, whatever mode of treatment was adopted. He considered more attention should be paid to the prophylaxis of diphtheria than was done at present.

Dr. CRAIG was very pleased that the paper he had read for Dr. Pairman had elicited such an interesting discussion. Dr. Pairman's treatment appeared to have been very successful. They had a very volatile antiseptic in sulphurous acid, which he sent into the atmosphere by burning a teaspoonful of sulphur every hour. It was his father, the late Dr. Pairman, of Biggar, who had first introduced this mode of treatment. The steaming had been successful in some of the cases in which the disease had spread into the larynx, and certainly no harm could be said to have been done by it to any of his patients. Dr. Ross had referred to the difference found in the eucalyptus leaves in New Zealand and Australia. This was not an uncommon experience. The late Sir Robert Christison had pointed out that certain umbelliferous plants were found to be poisonous when grown in one district of country, but quite harmless when grown in another. He should ask Dr. Pairman to enquire into the point that had been raised—the effect of steam alone, and steam with sulphur fumes. He would, however, like to point out that there might be a difference in the disease due to the semi-tropical climate from what they usually found in this country.

Maxwell Ross.

D'ESPINE.—*The Local Treatment of Diphtheria by Salicylic Acid.*
Rev. Méd. de la Suisse Rom., January, 1889.

THE author regards diphtheria as, in the first place, a local affection. He, along with M. de Marignac, has found that the development of Loeffler's bacillus of diphtheria is arrested by corrosive sublimate (1—8000), carbolic

acid (2%), salicylic acid (1-2000), chloral (1-100), and permanganate of potash (1-2000).

Diphtheria being a local infection, all internal antiparasitides, *e.g.*, mercury, should be avoided, as simply adding to the diphtheritic intoxication. All debilitating measures (chlorate of potash, antipyrine, apomorphine, &c.) should be rejected, tonics only being employed. In children milk is the best internal medication. Local treatment ought to precede and accompany general treatment. Early diagnosis is essential, and a piece of supposed membrane should be detached, stained, and Loeffler's bacillus sought for. At first they exist almost as a pure culture. Salicylic acid of strength of $1\frac{1}{2}$ to 2 in a thousand completely sterilises the false membrane, and should be used in repeated irrigations (every one or two hours) either through the mouth or nasal fossæ. In young children, who may swallow much of the irrigation, this should be reduced in strength to 1-1000 to 1-1500.

In the first 24 hours, from one to two litres of the solution may be used. Fever falls, and the throat is improved often within three or four hours. When the membranes are very firm and thick, swabbings may be employed as well as irrigations. For this purpose citron juice may be employed, since it has a clear destructive action on the bacillus. The authors have no experience of the action of salicylic acid in croup. Since it is innocuous, it can be employed in large dose, and without fear in diphtheria. Irrigations with the acid should be employed as a prophylactic in all simple anginas occurring during a diphtheria epidemic. All scarlatinal anginas which are likely to be followed by necrotic pharyngitis and true diphtheria ought to be treated antiseptically. Salicylic acid in diphtheria has been approved of by some, condemned by others. The author's recommendation is to use it very freely, and then it will be found serviceable.

R. Norris Wolfenden.

LOREY (Frankfurt-o-M.).—**The Treatment of Diphtheria by Insufflations of Pulverised Sugar.** *Wiener Med. Presse*, No. 2, 1889.

THE author has treated 80 cases in this manner, and finds that the sugar has an anodyne and antiseptic effect. The treatment must be supplemented by vigorous tonic medication.

Michael.

DOWNES, ARTHUR.—**Diphtheria and its attendant Sore Throat.** *Epidemiological Society of London*, June 13, 1888.

THE author referred to the theories of development of diphtheria from simple sore throat by a process of evolution, and observed that none of the supposed transformations of harmless into pathogenic organisms had stood the test of criticism. He illustrated by examples the usual mode of spread of diphtheria by ordinary personal infection, and occasionally by fomites. Milk epidemics were unknown in the author's rural districts, and no evidence exists of water-spread diphtheria. Drs. Thorne Thorne, Buchanan, and Michael Taylor, and Mr. Jacob, took part in the discussion which followed.

Hunter Mackenzie.

HUTCHINSON, JONATHAN (London).—Diphtheritic Paralysis of Accommodation after a Sore Throat so slight that it had been forgotten. *British Medical Journal*, June 30, 1888.

THE author believes that such a case proves that true diphtheria may occasionally be so slight as to be overlooked, and yet be efficient to the production of paralysis as a sequelæ. He has not seen general paralysis ensue after a slight form of sore throat like that now described, but has witnessed many in which the eye only, or the eye and palate only, have been affected.

Hunter Mackenzie.

BRUCE-LOW, R. (London).—Diphtheria at Enfield. *British Medical Journal*, June 2, 1888.

A SUMMARY of a medical report to the Local Government Board. The conclusions arrived at by the reporter were, that milk and the free mixing together of school children, were the principal vehicles of infection. Domestic animals were also suspected.

Hunter Mackenzie.

ANON.—Diphtheria on Shooter's Hill. *British Medical Journal*, June 16, 1888.

REFERENCE to an epidemic, stated to be of an annual nature, and supposed to be due to defective drainage.

Hunter Mackenzie.

D—.—Diphtheria and Diabetes. *British Medical Journal*, August 11, 1888.

SHORT notice of a case where this sequence is supposed to have occurred.

Hunter Mackenzie.

MOUTH, TONSILS, PHARYNX, &c.

HARRISON.—Double Hare Lip. *Brighton and Sussex Med. Chir. Soc.*, June 7, 1888.

EXHIBITION of case.

Hunter Mackenzie.

SYMONDS, CHARTERS (London).—Epithelioma of the Mouth: Removal of the Tonsil, Parts of the Soft Palate, Pharynx, and Tongue Preliminary Laryngotomy: Subsequent Recurrence, with Resection of Half the Lower Jaw. *British Medical Journal*, June 16, 1888.

A CLINICAL record of a case from Guy's Hospital.

Hunter Mackenzie.

CHURTON (Leeds).—A Case of Farcy. *British Medical Journal*, July 28, 1888.

A CLINICAL report of a case from the Leeds Infirmary. During the course of the disease the tongue became very dry, the cheek and upper lip on the same side became swollen and sore on the inner surface, and the gums were

swollen. There was no nasal disease or discharge. After death, a few ulcers were found in the larynx.

Hunter Mackenzie.

RIERS, W. R. (Brecon).—Excessive Thirst a symptom of Malignant Disease. *British Medical Journal*, June 2, 1888.

OBSERVATION founded upon a case of malignant disease of the liver and intestines.

Hunter Mackenzie.

GLEITSMANN.—A Case of Primary Tuberculosis of the Buccal Cavity. *New York Academy of Medicine*, November 27, 1888.

THE author showed a patient who had been cured of this rare and dangerous disease, and read the following comments on the case and its remarkably successful treatment: He had been able to find records of only three recoveries from it where it had been primary, and one where secondary. That the case which he presented had been one of primary tuberculosis there was no doubt; the lungs and the lymphatic glands were still unaffected. The patient had come to him six months previously, having been well up to within two weeks prior to her consulting him. At that time she had had slight pains on swallowing food, and fluids in particular. Her family history and general history were good. He had found, on his first examination, an ulcer as large as a pea on the base of the tongue, and to the left. A scraping away of diseased tissues, the rubbing in of lactic acid, and, at a certain stage, the galvano-cautery, had been the only measures which he had made use of. He had purposely kept aloof from medication, wishing to see the general and local phenomena in an unaltered state. The ulcer at the base of the tongue had proved to be only the beginning of the process with which he had had to struggle. A tuberculous ulceration had next appeared along the aryæno-epiglottidean ligament. He had attacked it, as before, with the blunt spoon and lactic acid. Repeated microscopical examinations of the matter removed invariably showed tubercle bacilli present in large numbers. In the early part of last July the primary ulceration on the base of the tongue had healed, but the ulceration in the epiglottidean folds had grown and was making great havoc. A little later there was pain in the left tonsil, and, on examination, a deep flabby ulceration was found in and about the tonsil, which also he had scraped out and cauterized with the galvano-cautery. Later on the lingual surface of the epiglottis had become affected. For a month it remained in an œdematous thickened condition; then, scarifying having failed to relieve this tuberculous infiltration, the whole lingual surface of the epiglottis had sloughed away, and with this the process had stopped at that point. On October 1st the free edge of the soft palate had ulcerated, but healed after being cauterized. Next the ulceration had reappeared in the aryæno-epiglottidean folds, the tonsils were ulcerating as rapidly as before, and the uvula was now badly involved. The condition of the patient indeed became very serious, swallowing gave her great pain, and he had almost despaired of saving her life. On October 20th, feeling that the last measures were now justified, he had scraped away the tonsils and scooped out the other infected areas with a sharp spoon, in spite of brisk hæmorrhage, and had rubbed in lactic

acid most energetically. When the slough caused by the acid came away a few days afterwards, he had been agreeably surprised to find a smooth and healthy granulating surface beneath, and the tuberculous process come entirely to an end. The pain on swallowing had ceased immediately after the last operation. The denuded surfaces had healed over with smooth cicatricial tissue, without sinuses, and with but a few irregularities or pockets. He ascribed the result mainly to the effect of the lactic acid. No medicines had been used internally. The patient was now in robust health and entirely free of any indications of tubercular deposits elsewhere.

R. Norris Wolfenden.

BRAMANN.—*Carcinoma of the Tongue.* *Freie Verein der Chirurgen Berlins, October 8, 1888.*

THE author exhibited a patient with cancer of the tongue, who had had psoriasis linguae for sixteen years.

Michael.

HAGEN.—*On Affections of the Lingual Tonsil.* *Medicin Gesellschaft in Leipzig, October 16, 1888.*

THE pathological anatomy of this condition was described by Swain, an assistant of the author's, in 1886, in the *Archiv. für klin. Med.* The acute form is rare, the chronic rather frequent. In this latter condition, the patient experiences a very disagreeable feeling of a foreign body in the throat, accompanied with pain. The mucous membrane is red, and follicular inflammations occur. The symptoms of the chronic form are sensation of pressure, and of a foreign body, cough, difficulty of speaking long, a feeling of oppression in the chest, and hypochondriasis. Examination shows hypertrophy of the lingual tonsil, and frequently malformation of the epiglottis. The author has seen the disease mostly in women, and often combined with menstrual irregularities. Prognosis is good, and the best treatment is galvano-caustic.

Michael.

WOLF, J.—*Uranoplasty.* *Berlin Med. Gesellsch., July 11, 1888.*

THE author exhibited a patient, twenty-four years of age, upon whom he had performed this operation with successful result as regards function.

Brand believed that prostheses gave better results than this operation.

Küster thought the results of the operation in some cases very satisfactory, in others quite the reverse.

Wolf thought that in the cases in which the operation was not successful, the soft palate was very distant from the posterior pharyngeal wall, and speech consequently had a nasal timbre. In such cases a prosthetic apparatus should be applied behind the newly-formed palate.

B. Fraenkel thought the result depended upon the state of the muscles.

Michael.

BEEVOR, CHARLES E. (London), and **HORSLEY, VICTOR** (London).
—*Report on some of the Motor Functions of Certain Cranial Nerves (V., VII., IX., X., XI., XII.), and of the Three First Cervical Nerves, in the Monkey.* *British Medical Journal, August 4, 1888.*

A REPORT to the British Medical Association of considerable physiological importance.

The author shows that the hitherto received idea of the soft palate being supplied by the facial nerves is entirely erroneous. They find that the levator palati is supplied by the eleventh nerve. Dr. Felix Semon has also, in conjunction with Professor Horsley, determined the same fact by experiments.

Hunter Mackenzie.

MACINTYRE, J. (Glasgow).—**The Muscles which act upon the Epiglottis.** *British Medical Journal*, August 25, 1888.

EXHIBITION before the British Medical Association of a series of dissections.

Hunter Mackenzie.

HOWARD, BENJAMIN.—**The Hyoid Bone and its Connections.** *British Medical Journal*, August 25, 1888.

DEMONSTRATION before the British Medical Association showing that "the hyoid bone is the central link of a chain by which alone the objective elevation of the epiglottis can be effected." The upper link of this chain consists of the genio-hyo-glossi and mylo-hyoidei muscles—the lower of the hyo-epiglottic ligaments, this linking the inferior maxilla with the epiglottis. The upward motion of the former produces simultaneous elevation of the latter.

The originality and value of this discovery were emphasised by several speakers.

Hunter Mackenzie.

GAUTIER.—**Caseous Concretions of the Tonsils.** *Rev. Méd. de la Suisse Rom.*, January, 1889.

THE crypts of the tonsils frequently contain whitish or yellowish masses, consisting of cells and microbes. These caseous masses give rise to no symptoms, and are easily eliminated by the passage of food, or during the toilette. Exceptionally, the crypts are abnormally distended by caseous matter, and give rise to trouble or malaise. Jacobson has given to the condition the name of *Algosis faucium leptothricia*, and other authors term it *phycosis*, or *mycosis tonsillaris benigna*, or seborrhœa of the pharyngeal glands.

These terms are used from the fact that the caseous masses are chiefly constituted by masses of leptothrix buccalis. The disease attacks by preference the isthmus of the fauces, rarely the pharynx, and rarer still the trachea, and its seat is in the orifices or the crypts of the mucous glands. The palatine tonsils are oftenest affected. Small white yellow buds or caseous masses appear on the surface of the glands. They are generally compact, single or multiple, but never confluent like diphtheritic plaques. Fever and dysphagia are absent, unless there is concurrent angina. They may give a bad odour to the breath. The sac empties of the mass, without giving rise to any ulceration. The tonsils are not hypertrophied. Tonsillar calculi probably arise from this condition. The author relates a case which was treated by incising the crypt, emptying it with a curette, and destroying by chromic acid. Jacobson rejects ablation of the tonsils in such cases as too violent a treatment for such a small malady, and the tonsils, moreover, are not hypertrophied, only the follicles being affected.

In the discussion which followed the reading of this paper at the Medical Society of Geneva, M. Haltenhoff thought that there was a connection between the asthenopia of children and certain forms of chronic angina. M. Godet did not think that the caseous amygdalitis of children with fever and malaise, was the same thing as this condition, but that they were two different diseases. Ignipuncture was suggested, by M. Rapin, as effective.

R. Norris Wolfenden.

SCHNITZLER.—Ulceration of the Tonsils. *Gesellschaft der Aerzte in Wien, December 21, 1883.*

THE author exhibited a patient with this condition. In this case a certain diagnosis could not be made, for in spite of microscopical examination, it was impossible to say whether it was chronic diphtheria, syphilis, or a neoplasm.

Michael.

FWLER, G. R.—Primary Carcinoma of the Tonsil—External Pharyngectomy—Recovery. *Brooklyn Med. Journal, September, 1888.*

THIS was the case of a woman aged sixty-seven, who presented a lobulated and movable growth of the left tonsil about the size of a walnut, and a lymphatic enlargement beneath the posterior border of the sterno-mastoid. There was pain, aggravated on swallowing. The patient's age, the unilateral tumour, the cutting pain, the cartilaginous hardness of the growth made a diagnosis of malignancy probable before the glandular mass appeared externally. Cutting down upon the tumour, tying the lingual and facial arteries, dividing the external jugular vein, and the stylo-hyoid muscle, the tonsil being pressed outwards, a circular incision was made with the thermo-cautery through the hyoglossus, superior constrictor and mucous membrane, and the tumour extirpated without hæmorrhage. The mass of lymphatic glands was "shaved" off the carotid artery to which it was adherent. Ten days after the patient could masticate and swallow solids, and eight months after the patient was free from recurrence in the tonsil, but the parotids of both sides were involved, and the patient died of gastric cancer. The author describes the operations for pharyngotomy practised by Billroth, Cheever, Kuester, Langenbeck, Potaillon, Wheeler, and Miculicz, &c.

R. Norris Wolfenden.

SKIRVING, A. S.—Anæmic Sore Throat. *Brit. Med. Assoc. (New South Wales Branch), May 4, 1888.*

PAPER read, but not reported.

Hunter Mackenzie.

FRAENKEL, B. (Berlin).—Diseases of the Pharynx. *Eulenberg's Real Encyclopædia der Gesammten Heilkunde (Second Edition).*

A VERY good review of the subject, with especial reference to recent works.

Michael.

M'ANDREW, J.—A Pin passed per Anum in Forty Hours. *British Medical Journal, June 16, 1888.*

RECORD of a case in which a child of two years swallowed a pin. No effect was produced on the mouth or throat.

Hunter Mackenzie.

FISCHER (Hanover).—**Œsophagotomy and Pleurotomy for Foreign Body. Report of 120 Œsophagotomies.** *Deutsch. Zeit. für Chir.* Band 29. Heft 1.

A PATIENT fifty years of age got a piece of bone in the throat which he could not remove. The œsophageal sound and the laryngoscope failed to discover the foreign body. A few days later swelling of the posterior pharyngeal wall occurred, necessitating incision, but without effect. Expectoration of putrid sputum occurred, swelling of the neck, dyspnoea, and great prostration. Œsophagotomy was performed, but no foreign body found. The operation was not followed by any bad consequences. Three weeks later the patient developed fever crepitant rhonchi in the right lower lobe, and the sputum became very fetid. Pleurotomy and resection of a rib were performed. Very purulent secretion was discharged. Death followed two days later, nine weeks from the commencement of the symptoms. At the autopsy the wound in the œsophagus was found to be cured. Gangrene of the right lung was found, but the foreign body could not be discovered. The case was considered to be sepsis following on the lodgment of the foreign body in the pharynx. In an appendix the author completes his collective report of œsophagotomies (*cf.* this Journal, 1887, p. 411), adding twelve cases, making a total of 120. Of these further twelve cases, eight were cured, four died from septicæmia, tuberculosis, secondary hæmorrhage, and pulmonary gangrene.

Michael.

WEISSENBACH.—**A Case of Gastrostomy.** *Rev. Méd. de la Suisse Rom.*, September, 1888.

THE patient was a man sixty-eight years of age, with a fibrous stricture of the œsophagus. At first dilatation was tried for some months, but the patient could not breathe with the sound in the œsophagus. A bougie of 15 millimètres was passed, but only when the man made antiperistaltic movements, diverticula evidently existing in front and between the constrictions. On certain days fluids passed well, on others this was impossible. Eventually swallowing became impossible, and the patient became enfeebled. Gastrostomy was performed, and the stomach fixed by eighteen silk sutures. From inability to swallow saliva, and its entry into the larynx, a putrid bronchitis supervened, and the patient died shortly after from broncho-pneumonia. The author concludes that gastrostomy is contra-indicated in cases where the patient cannot accustom himself to expectorate saliva day and night, and when the sensibility and reflex movements of the respiratory apparatus are defective.

R. Norris Wolfenden.

NOSE, NASO-PHARYNX, &c.

PEYLER (Munich).—On Nervous Coryza and Salivation, and their Etiological relation to Diseases of the Sexual Organs. *Münch. Med. Woch.*, Nos. 3 and 4, 1889.

1. A PATIENT, twenty-six years of age, twice a week gets very intense coryza lasting for one day. Between the attacks the patient is well. Attacks of coryza also occur if he drinks much beer the day before. Local treatment directed to the nose and pharynx was ineffective. Some time later the patient confessed to onanism and a certain degree of impotence. Examination determined the presence of spermatorrhœa. Treatment directed to this condition cured the patient.

2. A lady, twenty-one years of age, had violent attacks of coryza with vertigo. Nothing was detected in the nose or naso-pharynx, but there was chronic catarrh of the cervix uteri. Treatment of this condition cured the patient. The author refers to similar observations of Cresswell Baber, John N. Mackenzie, and Joal.

3. A girl, fifteen years of age, had excessive salivation, deglutition of all the saliva being impossible. She was prevented from attending school. She also had spasmodic cough. The treatment of a chronic metritis cured the condition.

4. A patient, twenty-five years of age, had excessive salivation for two years. He also suffered from spermatorrhœa. The cure of this cured the salivation.

5. A man, thirty-nine years of age had excessive salivation, from which he had been treated for a long time ineffectually. The condition was cured with the cure of a spermatorrhœa and impotence.

6. A man of twenty-four, who had been an onanist, had pollutions and spermatorrhœa, but also excessive salivation after meals, which was cured by treatment directed to the sexual organs.

7. A man of thirty-three, with the same symptoms, was also cured by the same means.

The observation of these cases leads the author to the conclusion that in cases of nervous affections of the nose, &c., it is necessary to examine into the state of the sexual organs, and to correct their abnormal conditions.

Michael.

MACKENZIE, G. HUNTER (Edinburgh).—A Lecture on Chronic Rhinitis and its Sequelæ. *British Medical Journal*, June 16, 1888.

THE author deals in detail with the following points :—(1) The effect of chronic inflammation upon the nasal mucous membrane and its functions ; (2) The direct and reflex effects of chronic rhinitis upon contiguous structures ; (3) The effects of chronic rhinitis upon the ear and the sense of hearing ; and (4) The direct and reflex effects of chronic rhinitis upon the vocal and respiratory organs. The treatment appropriate to each of these is also briefly considered.

The Author.

GARRY, T. G. (Liverpool).—**Paroxysmal Sneezing.** *British Medical Journal*, June 30, 1888.

REFERRING to the paper of Drs. Ringer and Murrell, the author mentions a lady in whom all treatment failed, with the exception of compressed air. She was placed under pressure of seven pounds (nearly one atmosphere and a half) to begin with, and, after a fortnight, of ten pounds, which was never exceeded.

The author remarks upon the sedative influence of compressed air on the nervous system, and especially on the nerves supplying the mucous membrane of the air-passages.

Hunter Mackenzie.

RINGER, SYDNEY, and MURRELL, WILLIAM (London).—**Remarks on Paroxysmal Sneezing.** *British Medical Journal*, June 16 and 23, 1888.

THE authors propose to include under this title "hay fever" and "hay asthma," as also "summer asthma" and "summer bronchitis."

The attacks may affect only the upper part of the respiratory tract, or they may involve the lungs, or both may be implicated. The sneezing paroxysms may alternate with, or replace the asthma, or one of them may preponderate.

The authors refer to the investigations of Blakeley, and to the various exciting causes of the complaint, and they relate in detail a typical case of sneezing produced by emanations from the horse; and another, which they believe to be unique, in which asthma and sneezing were produced by contact with a caterpillar. The influence of sunlight in inducing or aggravating the attacks is also mentioned. In some cases sunlight alone appears to be sufficient to induce an attack, whilst pollen is quite inoperative. Dust is a common exciting cause, and a curious case is recorded in which house dust invariably brought on an attack, whilst street dust failed to do so. Such a case tends to disprove the theory that dust acts as an excitant on account of the pollen which it contains. Violent exercise or particular foods may be exciting causes of sneezing. The principal exciting causes of such attacks, however, are pollen, the emanations from various animals, and bright sunlight. In many cases it is difficult or impossible to discover any exciting causes. Nasal irritation intensifies the attacks. Other neuroses may co-exist with the sneezing.

The authors' cases show that paroxysmal sneezing is related on the one hand to bronchitic asthmic asthma, and on the other to hay fever. In almost all a part, or even the whole, of the nasal passages is affected, and often the eyes, soft palate, and throat are also involved. In some, the nose is altogether unaffected. A hereditary connection occasionally exists between intermittent sneezing and asthma. In these cases a change in the type of disease in its transmission from parent to child is frequently manifested. A certain vague hereditary relationship can sometimes be traced between paroxysmal sneezing, asthma, migraine, and some forms of headache.

In some cases of asthma and bronchitis irritation of a spot far removed from the chest or seat of pain will induce an attack.

When sneezing and asthma co-exist, they do not, as a rule, occur at the same time : one form replaces the other, and local applications which arrest the sneezing, sometimes induce an attack of dyspnoea.

In children, sneezing is easily induced, and its frequent occurrence without apparent cause is not infrequently the first indication of an asthmatic tendency—a fact not generally recognised. Sometimes, however, both in children and adults, asthma precedes the paroxysmal sneezing.

The influence of locality, and of certain neuroses, such as a sudden fright, in exciting or warding off attacks of asthma and of sneezing, is referred to. Mention is also made of emotional or ideal causes, as in the well-known case of the individual who was attacked with coryza after standing for a few minutes in front of the picture of a hayfield in the Royal Academy.

The authors divide the remedies employed in the treatment of paroxysmal sneezing into two categories : first those which break up the paroxysm ; and, secondly, those which by gradual action so modify the pathological condition of the mucous membrane, that the predisposition to their return is removed. To the first belongs cocaine (which the authors highly recommend in the form of tabloids inserted in the nose), pungent inhalations of all kinds, but more particularly of iodine, chloroform, tobacco smoking, and nitre papers. These last, as usually prepared, are too weak to do much good. The authors recommend that the nitre paper should consist of six thicknesses of blotting-paper steeped in a saturated solution of nitrate of potassium and chlorate of potassium. When dry it should be sprinkled with essence of camphor, compound tincture of benzoin, tincture of sumbul, or some preparation of stramonium, and burnt in a tin at the bedside. Strong black coffee, taken at the onset of the paroxysm may cut it short. Hazeline locally and internally may prove of service. The second category includes the iodides, arsenic, inhalations, or the use of a spray of a 2 per cent. aqueous solution of iodine, and the removal of polypi and hypertrophied nasal tissue. When the attacks are attended with itching or irritation of some particular spot or region, the local application of aconite liniment or aconitia ointment may at once give relief.

Hunter Mackenzie.

GENTH, CARL (Langen Schwalbach).—*Therapeutics of Hay Fever.*
British Medical Journal, June 16, 1888.

THE author asserts that hay fever usually begins with symptoms of conjunctivitis, and upon this he builds his system of therapeutics.

He considers it probable that the agent which is the cause of the complaint, first attacks the conjunctiva, and multiplies there ; it then diffuses itself over the mucous membrane of the respiratory organs, perhaps through the medium of the laryngeal canal. Consequently treatment must, at the earliest possible date, be directed to the eyes.

The instillation and bathing of the conjunctiva with a sublimate solution (1 in 3000), and the wearing of blue spectacles are the methods of treatment recommended.

Hunter Mackenzie.

BIGG, G. S. (Army Medical Staff).—**Hay Fever.** *British Medical Journal*, July 28, 1888.

THE author recommends a method of treatment which consists in spraying the palate and throat with a lotion of equal parts of a solution of cocaine (5 per cent.) and carbolic acid (1 in 120) before entering any graminaceous district: the insertion of plugs of sponge saturated with this lotion into each nostril: the use of collyrium of corrosive sublimate (1 in 1000), and sulphate of zinc (grs. ii. to fl. oz.); and a tonic of 5 minims of Fowler's solution, 2 grains of iodide of potash, and 20 drops of aromatic spirits of ammonia, thrice daily.

Hunter Mackenzie.

PAGET, W. S. (Great Crosby).—**Therapeutics of Hay-Fever.** *British Medical Journal*, July 28, 1888.

THE author confirms the views of Dr. Carl Genth (noted above) in regard to the earliest symptoms of the disease appearing in the eye, and he recommended that the onset of the complaint be anticipated by gently bathing the eye with a weak boracic or borax lotion, or with a one per cent solution of cocaine, and by wearing coloured glasses.

Hunter Mackenzie.

RAKE, BEAVAN (Trinidad). — **Tuberculated Leprosy: Ankylostomiasis—Tuberculosis—Necropsy.** *British Medical Journal*, August 25, 1888. *Clinical Report from the Leper Asylum, Trinidad.*

THE case was complicated by the presence of maggots in the nose, for which calomel injections were ordered. These produced salivation very quickly.

Hunter Mackenzie.

SCHMIDT, MORITZ (Frankfurt-on-M.).—**The Diagnosis and Treatment of Diseases of the Antrum of Highmore.** *Berlin, Klin. Woch., No. 50*, 1888.

THE author uses a Pravaz syringe, with which he perforates the lower nasal passage through the jaw bone. By suction it is possible to make a diagnosis of empyema. For the cure of the condition he prefers to perforate the alveolus of a bicuspid tooth by means of the American drill.

Michael.

GABRIEL, WILLIAM (London), and **SEWILL, HENRY** (London).—**Abscess of the Antrum of Highmore.** *British Medical Journal*, July 21, 1888.

THESE contributions have reference to the treatment of the complaint. An opening is made in the floor of the antrum through the alveolus of the first molar. To this a gold plate is fitted, in which is a hole containing a gold tube, which passes well into the cavity. The hole is closed below by a screw or plug. This prevents the entrance of foreign particles, and allows of a satisfactory cleansing of the cavity. When a cure has been effected the tube is cut off flush with the plate, and the hole is soldered up with gold. The patient continues to wear the plate during the healing of the wound so as to prevent the entry of foreign bodies.

Hunter Mackenzie.

LARYNX.

VOLTOLINI (Breslau).—**Illumination of the Larynx and other Cavities of the Body.** *Monats. für Ohrenheilk.*, No. 11, 1888.

Vide the review (in this number) of this author's work. Michael.

OGSTON.—**Intubation of the Larynx.** *Brit. Med. Assoc., Aberdeen, Banff, and Kincardine Branch*, May 16, 1888.

AN account of the method of intubation, with a demonstration of O'Dwyer's instruments, and narration of a case of croupous laryngitis in which it had been successfully employed. Hunter Mackenzie.

CÆSAR, R. T. (Wellington, Salop).—**Leeches in the Air Passages.** *British Medical Journal*, July 28, 1888.

AN extract from a journal of date 1802, referring to the case of a sailor who, in drinking from a stagnant pool, imbibed two leeches. After causing a good deal of hæmorrhage, there were extracted on the thirteenth day, one from the nose, and the other from the mouth. Hunter Mackenzie.

LEYDEN (Berlin).—**Foreign Body in the Respiratory Passages.** *Verein für innere Medicin in Berlin. Meeting*, December 17, 1888.

THE author exhibited a piece of bone two centimètres long and one centimètre broad, which had remained for eight and a half months in the respiratory tract of a young lady. After swallowing the bone, the patient had cough and dyspnoea, but the foreign body could not be found. During the whole period the patient was very ill, but was cured suddenly when the bone was coughed out. The bone had been lodged in the right bronchus. Michael.

HARRISON, REGINALD (Liverpool).—**A case where a Damson Stone was lodged in the right Bronchus—Tracheotomy—Recovery.** *British Medical Journal*, June 23, 1888.

CASE of a child aged eight years. A free incision was made into the trachea, and, just as the child was being inverted, the stone shot out into the wound.

The author states that the very free incision into the trachea not only favoured the immediate expulsion of the stone, but proved of service as a vent for the free expectoration which followed. Hunter Mackenzie.

WRIGHT.—**Rupture of the Larynx.** *Manx. Med. Soc.*, June 6, 1888.

DEMONSTRATION of a case, without particulars. Hunter Mackenzie.

LUSCOMBE, W. E., and BROADBENT, FRANK (Collingham, Notts).—**Incised Wound in the Thyro-hyoid Space.** *British Medical Journal*, August 25, 1888.

CASE of attempted suicide with recovery. The author believes that it is

of great advantage not to stitch up such wounds, so as to permit of the free discharge of mucus, which in the present case was very copious.

Hunter Mackenzie.

KEMM, ST. JOHN, and MARTIN, EDWARD F. (Weston-super-Mare).—**Suicidal Case of Cut Throat.** *British Medical Journal*, August 25, 1888.

SHORT note of a case in which recovery took place. Hunter Mackenzie.

M'BRIE (Edinburgh).—**Clinical Notes on Lipomata of the Larynx.** *Edinburgh Medical-Chirurgical Society*, December 19, 1888.

So far as is known only four cases of this kind have been previously recorded. Two of these were observed on the dissecting table by Wagner and Tobold, and two had been operated by Bruns and Schrötter. Dr. M'Bride has lately seen two cases, both in males. The first patient complained of occasional noisy respiration, followed after some months by difficulty in swallowing, but no pain. A pale pink tumour was seen behind the tongue attached to the epiglottis, and about the size of a pigeon's egg. It could not be removed with the cold snare. The galvanocaustic snare was more effectual, getting away the greater portion of the growth which was operated on again after recurrence, and this time with more success, as the tumour had the appearance of having been enucleated. The second patient complained of feeling a lump in his throat, which caused a thickness of speech, and obstructed breathing when he lay on his left side. Latterly, he had also experienced difficulty in swallowing. A pale pink tumour, overlying the left arytenoid cartilage, was removed, along with its capsule, and after removal it was seen that the pedicle had been attached to the outer part of the sinus pyriformis. The galvanocaustic loop was used in this case as in the former.

Mr. CATHCART asked if the term laryngeal was strictly applicable to these tumours. It seemed to him that the first at any rate grew from the back of the tongue, rather than the larynx. Tumours of the size shown, growing into the larynx, must have produced severe obstruction.

Dr. M'BRIE said he, in the first place, pleaded precedent for calling these tumours laryngeal, and in the second they grew from laryngeal structures. Though so large, they had a wonderful power of adapting themselves to the sinuosities of the larynx, so much so that they might at times be missed, even by those accustomed to make laryngoscopic examinations.

[Though Dr. M'Bride pleads precedence for calling these tumours laryngeal it may be noted that in the article on Lipoma in Drs. Wolfenden and Martin's studies in Pathological Anatomy it is stated the "the four cases in which it has occurred, have all been extra-laryngeal."]

Maxwell Ross.

FRAENKEL, B. (Berlin).—**Anatomy of the Vocal Cords.** *Berlin Med. Gesellschaft*, July 11, 1888.

THE author exhibited microscopical specimens of the true cords, showing small glands, in which pathological increase gave rise to nodules and polypi.

Michael.

78 *The Journal of Laryngology and Rhinology.*

SCHECH (Munich).—On Recurrent Paralysis. *Münch., Med. Woch.*, 1888.
A REPORT upon forty-two cases of paralyses caused by different conditions.
Michael.

DRESCHFELD.—Case of Fibroid Phthisis of Left Lung. *Manc. Med. Soc.*, June 6, 1888.

HERE a pulmonary murmur was heard, and the left vocal cord was paralysed.
Hunter Mackenzie.

PLESKOFF (Heidelberg).—A Case of Hæmorrhage from the Laryngeal Mucous Membrane, during a Chronic Laryngeal Catarrh. *Münch. Med. Woch.*, No. 49, 1888.

THE patient was a teacher, and the condition had arisen from overstraining the voice. The bleeding spot was found to be on the left vocal cord, near the processus vocalis.
Michael.

BATEMAN, F.—Obscure Case of Œdematous Laryngitis. *Brit. Med. Assoc. (East Anglian Branch)*, June 29, 1888.

PAPER read, but not reported.
Hunter Mackenzie.

GRIMME.—Casuistics and Statistics of Laryngeal Carcinoma. *Inaugural Diss. Munich*, 1888.

OUT of a total of 13,517 autopsies, laryngeal carcinoma was found in fifteen cases, or 0·1 per cent. Most of the patients were men, and the ages between forty and seventy.
Michael.

HOLLINGSHEAD, FRANCIS (Selly Oak, Birmingham).—Perichondritis of the Larynx—Tracheotomy—Recovery. *British Medical Journal*, June 2, 1888.

RECORD of a case.
Hunter Mackenzie.

RAZUMOVSKY, Prof. VASILY I. (Kazan).—Extraction of Two Tracheotomy Tubes from the Trachea. *Dnevnik Kazanskaho Obshtchestva Vrachii za*, 1887, December 27, p. 277.

THE author details the following, probably unique, case. A woman, aged fifty-five, was admitted to the Alexandrovsky Hospital in July, 1887, complaining of having foreign bodies in the trachea. In 1882 she had been tracheotomised on account of cicatricial laryngo-stenosis, and had ever since worn a silver tube. In May, 1884, the external tube had broken across close to the shield, and had disappeared within the windpipe. She had at once inserted another silver tube, but from that time had been incessantly suffering from an agonising feeling of suffocation—sometimes amounting to genuine asphyxial attacks, from violent paroxysmal cough, with occasional blood-stained (though scanty) sputa, severe pain behind the sternum, and most obstinate sleeplessness (only being able to get sleep in snatches).

Three years later, in May, 1887, the other tube had broken off exactly in the same manner, ultimately making her sufferings simply

intolerable. On admission, about three months after the second accident, the woman looked wretchedly ill, being emaciated, prostrated, and peculiarly excited, "producing the impression that she was insane." On closing the tracheal hole she could speak only in a weak, hardly audible, whisper. A probe at once struck a foreign body at the site of tracheal bifurcation. Without any delay, the author introduced a pair of pharyngeal forceps, and was able to seize the tube fairly easily, and to bring it close to the tracheal opening. The extraction, however, proved rather tedious, and caused a slight laceration of the tracheal wound. The other tube was struck by the forceps in the right bronchus at the depth of 15 centimètres (from the fistula). Many times it could be caught and lifted up, but again and again slipped out only to fall back. After prolonged unsuccessful efforts, it was ultimately firmly seized and dragged up into the windpipe, but during the extraction broke into two large and several small-sized pieces. The large fragments were extracted with the forceps, while the small ones were subsequently coughed out. The former tube was found plugged up with mucous matter, but did not present any alterations, while the older cannula which had remained in the bronchus for three and a quarter years was quite black (from the formation of Ag_2S), corroded, and thinned. The extraction was performed at three sittings, with intervals of a few days. Already after the removal of the first tube considerable relief was given, the pain and cough markedly decreasing.

Immediately after the second extraction a steady and rapid improvement set in. When re-examined four months later, the patient looked stouter, and was practically well. In fact, she complained solely of a slight pain behind the sternum. On closing the fistula, she could speak in a fairly loud, though still rather hoarse, voice. Percussion of the lungs did not elicit anything abnormal. On auscultation between the scapulae and vertebral column, the respiratory sounds were found to be slightly harsher on the right than on the left side. Having analysed his case and reviewed international literature on the subject, Professor Razumovsky draws the following deductions :—(1) The accident represents, as a rule, a very grave complication, which is liable to be followed by a train of serious symptoms, and even by fatal issue. (2) It can be prevented by using good tubes. A tracheotomy tube can be termed "good" when (*a*) it is made of silver of a high standard (84) ; (*b*) when the shield and stem are made of one piece ; (*c*) when the tube is thick walled. (3) In cases where the tube is to be worn permanently, the patient (even when wearing the best possible tube) must be examined by his medical attendant not less than twice a year. The inspection is necessary, because metallic silver in the course of time undergoes partly oxidation, partly transformation into Ag_2S , the oxide and sulphide layers subsequently falling off from friction. (4) In case of the accident, the best plan is to extract by means of a pair of slightly curved pharyngeal forceps. When an enlargement of the tracheal fistula if required, the trachea should be laid open after Bogdanovsky's method, that is, by a free incision, after preliminary ligature, and division of the thyroid isthmus.

Of non-Russian cases Professor Razumovsky mentions only those

published by Champouillon, Sander, Burow, Howse, Lucas, Settegast Kirchhoff, and Godlee. Similar cases were reported further by Hueter, Schueller, Nélaton, Pauly, Erichsen, Koenig. *Ude* also Dr. R. Neale's *Medical Digest*, section 621, 5. The Russian literature contains the following cases :—

1. Masing's (*St. Petersburg Medizinische Wochenschrift*, 1870) case. At the necropsy of a man who had died from an accidental cause (left-sided pneumonia), there was found a fragment of a silver tube lying encapsulated in a right-sided enlarged bronchus.

2. Professor Evgeny I. Bogdanovsky's two cases (*Ejenedelnaia Klinitcheskaja Gazeta*, No. 1, 1881, p. 1). In one of the patients, an external indiarubber tube screwed off from the shield and fell down to the bifurcation. Having divided the thyroid isthmus between two ligatures, the author freely split up the trachea, and very easily brought out the foreign body by means of long curved forceps. The man made good recovery. The other case refers to a man with right-sided purulent pleurisy. At the *post-mortem* examination there was discovered a fragment of the lower portions of an indiarubber tube, fixed in a large bronchus on the right side. The fragment had given rise to a peribronchitic abscess, which had found its way into the corresponding pleural cavity, causing pyopneumothorax. Professor Bogdanovsky advises (1) to give up all use of indiarubber tubes, especially of those furnished with a screw joint; (2) to use solely silver tubes, which are said to be more durable; and (3) to duly teach the patient the management of the tube.

3. Dr. Vladimir I. Radulovitch, of Orel, describes in the *Vratch* (1881, No. 26, p. 425), the case of a gatekeeper who had been tracheotomized by him in 1870 for syphilitic laryngo-stenosis, and had been wearing a silver cannula ever since. Four tubes had been changed in the course of ten years, the change being necessitated each time by extreme corrosion in consequence of profuse oxidation and formation of green copper salts. In 1880, the outer tube broke across close to the shield, immediately causing most alarming symptoms of suffocation. About a quarter of an hour later, the author slightly enlarged (by means of Pott's knife) the tracheal fistula downwards, and without much difficulty extracted the cannula with curved laryngeal forceps. The incision passing through an old cicatricial tissue, no blood was lost. About half an hour after the operation, the man resumed his professional duties. An analysis of the tube proved that its silver was of a low standard, the proportion of copper being exceedingly high. The writer emphasises the necessity of (1) using gilt-silver tubes of a high standard, and (2) of periodically examining the patient.

4. In the *Vratch*, No. 25, 1883, p. 396, Dr. Vasily P. Goldinger, of Moscow, records the case of a labourer who had been tracheotomised for syphilitic laryngo-stenosis, and had worn a silver tube for two years. By the end of that time, when the man was one day walking on the street, the tube suddenly gave way about the shield, and caused an extreme difficulty in breathing. He at once ran to the hospital, where the author at first tried to extract the foreign body with long laryngeal forceps, but failed, on account of the fistula being too narrow; hence he slightly

enlarged the latter downwards, but this time found himself unable to catch the cannula. Notwithstanding the failure, after the insertion of a large tube, the patient could breathe quite comfortably. A series of similarly unsuccessful attempts at the extraction was made subsequently by other medical men; the patient ultimately (about two months after the accident) leaving quite well, with the foreign body fixed somewhere in the large bronchi. Dr. Goldinger believes that it would be worth while to invent a suitable instrument for catching the tubes, the accident occurring by far more frequently than one is accustomed to think.

5. In the *Ejenedelnaiä Klinitcheskaiä Gazeta*, No. 8, 1884, p. 113, Dr. Vladimir N. Zenenko, of St. Petersburg, publishes the case of a male peasant of thirty-six, tracheotomised ten years previously for cicatricial laryngo-stenosis, and wearing Luer's silver tubes (changed every $1\frac{1}{2}$ -2 years) ever since, who was admitted about three or four hours after the tube had suddenly slipped down into his trachea during some muscular effort. The foreign body was at once struck by laryngeal forceps about the bifurcation. It was easily grasped and brought up to the fistula, but all attempts at its extraction remained unsuccessful (in consequence of its slipping out) until the opening was slightly (1 or 2 millimètres) enlarged upwards and downwards, after which the cannula could be removed by means of manipulations with two laryngeal forceps. On the third day the man was discharged well. The tube extracted measured $6\frac{1}{2}$ by 5 by $1\frac{1}{2}$ to $1\frac{1}{4}$ centimètres. It proved to consist of silver of a high standard (84). Nevertheless it was greatly corroded, thinned, and blackened, the (very irregular) fracture having occurred close to the shield. Having discussed at some length all particulars of the case, Dr. Zenenko lays down the following propositions concerning the management of the accident under consideration:—(1) The extractions should be preceded by a digital dilatation of the tracheal fistula. (2) It should be performed after the patient has been placed on his back, with his head hanging down. (3) The most convenient instrument is a pair of curved laryngeal forceps (as used for extraction of foreign bodies from the larynx), with thin and narrow blades. (4) After the foreign body has been brought up to the level of the fistula, the instrument should be replaced by less curved and stronger forceps. (5) A surgical enlargement of the fistula must be resorted to only after the preceding plan has failed. (6) The incision must be then sufficiently free (after Bogdanovsky's method; *vide supra*). (7) Small incisions into the cicatricial ring surrounding the fistula are justified only as a means for accomplishing the extraction through the tracheal opening. According to Prof. Razumovsky, in 1886, Prof. Studensky, of Kazan, succeeded in extracting (by means of laryngeal forceps) a fragment of an indiarubber tube which had remained in the trachea for several days.

Valerius Idelson.

IVANOFF (St. Petersburg). — **Fibrinous Laryngo-tracheo-bronchitis treated by Tracheotomy and Cleansing the Parts by means of Feathers.** *Pratch*, 1888, No. 49, p. 992.

AT a recent meeting of the St. Petersburg Society of Pædiatrics, Dr. Ivanoff read a paper on the case of a girl, aged 17 months, in whom there

had suddenly appeared agonizing cough, accompanied by fever and prostration. In the course of a few days, the cough gradually became dry, hoarse and rough, while there supervened a steadily increasing difficulty in breathing. On examination, the author found cyanosis of the skin, dyspnœa, and distension of the pulmonary bases; the fauces, however, did not present anything abnormal. Neither wet packings, nor steam inhalations, nor an apomorphia spray brought any relief whatever. The symptoms rapidly growing worse, tracheotomy was performed, but was followed only by a slight and fleeting alleviation of the respiratory phenomena. As a last resource, Dr. Ivanoff tried a mechanical removal of the (probably diphtheritic) pseudo-membranes by means of small feathers, which procedure swiftly and strikingly relieved all symptoms of asphyxia. There occurred several relapses of the stenosis in the course of the next 48 hours, but the cleansing, resorted to without delay on each occasion, was invariably followed by the same satisfactory results. A steady and permanent recovery took place ultimately. In another similar case occurring in a boy of three, the procedure successfully removed asphyxia, but the child subsequently died from prostration. **Valerius Idelson.**

PETERSSON, O. V. (Sweden).—**A Case of Bronchitis Fibrinosa.** *Upsala Lækafeöreningens Föerhandlingar. Vol. XXIV, p. 193, 1888.*

THE patient, a young man aged eighteen, in good health, had a slight cough, with blood-streaked expectoration lasting twenty-four hours, but was otherwise well. After a temporary feeling of pressure in the chest, he expectorated a white mass, which was found on examination to consist of two membranous tubes, the one being 9 the other 14 centimètres long, exhibiting the characteristic appearance of the bronchial tree to its smallest ramifications. There were no symptoms from the pharynx or the larynx. The patient felt well afterwards, having only for some days a slight cough, with blood-streaked expectoration. **Holger Mygind.**

NECK, &c.

HARSANT, W. H. (Bristol).—**Cases illustrating the Surgery of the Thyroid Body.** *Bristol Medico-Chirurgical Journal, December, 1888.*

THE author lays down the rule that no cutting operation should be performed for simple hypertrophy of the thyroid, unless dyspnœa, or dysphagia, or aphonia be present, causing serious distress or danger.

He has treated a large number of cases of simple hypertrophy by injections of iodine and solution of ergotin, but in most cases the result has been disappointing. In a case occurring in a woman and causing severe dyspnœa, the author divided the isthmus, curing the dysphagia and dyspnœa, and with disappearance of the tumour. In another case,

the right lobe was removed on account of pressure upon the trachea. In another, a very large central portion, causing dyspnoea from pressure, was removed, and cure resulted.

In the fibrous variety the author regards nothing as of avail except incision. A case of primary carcinoma of the thyroid is recorded by the author. The patient was a lady, aged forty-five, who had had an enlargement of the thyroid for four months, which had subsequently taken a rapid growth, causing increasing dyspnoea, which became extreme. The tumour apparently sprang from the isthmus, was firmly attached to the trachea, and the skin over it was adherent. There were enlarged cervical glands. The tumour reaching to the upper border of the sternum, tracheotomy was out of the question. The author removed the tumour, dissecting it from the trachea below, which it had infiltrated. A tracheotomy tube being inserted allowed a leisurely dissection. After completing the operation the tube was removed, and the opening in the trachea sutured, but breathing again becoming difficult, the tube had to be re-inserted. The patient died twenty-three days after the operation from bronchopneumonia.

R. Norris Wolfenden.

HUTCHINSON, JONATHAN (London).—**On the Acute Bronchocele of Adolescents. An Aunt and Nephew affected at corresponding ages. Complete recovery of the former.** *British Medical Journal*, June 30, 1888.

THE author remarks that this is a variety of bronchocele which is almost peculiar to adolescents. It increases very rapidly, and is sometimes attended by urgent symptoms of tracheal compression. It is worth study as a form of constitutional disease.

Hunter Mackenzie.

HAMMAR, J. AUG. (Sweden).—**A Case of Morbus Basedowii without Pathological Changes of the Cervical portion of the Sympathetic Nerve.** *Uppsala Lackareföerens Föerhandlingar*. Vol. XXIV., p. 200, 1888.

AT the post-mortem of the patient, a woman aged forty-three, who during life had exhibited marked symptoms of Basedow's disease for several years. No pathological changes whatever were found on the examination of the cervical portion of the sympathetic nerve. The spinal cord was not examined. The author has found recorded altogether 22 cases of post-mortem examination of the sympathetic nerve, of which 15 gave the same result as his.

Holger Mygind.

ORD.—**Conclusions of the Myxœdema Committee.** *Clinical Society of London*, June 2, 1888.

FOR the conclusions, fifteen in number, arrived at by the committee, the reader is referred to the original report.

Hunter Mackenzie.

LUNN.—(1) **Three Cases of Myxœdema;** (2) **Case of Ichthyosis of the Tongue.** *Brit. Med. Assoc. (Metropolitan Counties Branch, Western District)*, June 5, 1888.

DEMONSTRATION of cases.

Hunter Mackenzie.

84 *The Journal of Laryngology and Rhinology.*

BLACK.—**Blood Cyst in Neck.** *Brighton and Sussex Medico-Chirurgical Society, June 7, 1888.*

EXHIBITION of case. The cyst was regarded as a degenerated nævus. It was proposed to treat it by tapping.

Mr. W. Turner was in favour of free opening.

Dr. Whittle narrated a case of a congenital blood-cyst under the gluteus maximus which was cured by free opening and removal of a portion of the cyst wall.

Hunter Mackenzie.

OWEN, ISAMBARD (London).—**Reports of the Collective Investigation Committee of the British Medical Association. Report on the Inquiry into the connection of Disease with Habits of Intemperance.** *British Medical Journal, June 23, 1888.*

THE only point which concerns us here is the relation of these habits to the induction of tubercle. "The results give some countenance to the belief that, as regards the young, alcoholic drink acts as a preventive of tubercle, but, as regards the old, they appear to favour the contrary opinion. In the middle-aged the two principles of action appear to neutralise each other."

Hunter Mackenzie.

REVIEW.

VOLTOLINI (Breslau).—**Diseases of the Nose and Naso-Pharynx, with a Treatise on Electrolysis.** With forty-eight woodcuts, and three chromo-lithographs.¹

THE author, who is one of the oldest of German laryngologists and rhinologists, gives in this book the results and opinions arrived at during thirty years' practice in diseases of the nose and naso-pharynx. Such a work coming from a man of great originality and scientific attainments must necessarily be of great interest. The work is no handbook in the usual sense, and is consequently more to be recommended to specialists than to students. In nearly every page we find valuable and original remarks. The first portion of the work deals with anatomy, especially of the erectile tissues of the nose, and is followed by discussion of the sense of smell, and the olfactory function of the nose. The chapter on the examination of the nose also refers to the nearly forgotten *corpus adiposum male* and its tumours. The author has a great preference for sunlight as a means of illumination. For anterior rhinoscopy he uses Charrière's speculum modified, and for Mackenzie's so-called rhinoscopy he uses a modification of Brunton's ear speculum. The author's palate hook is specially commended for posterior rhinoscopy which permits of

¹ *Die Krankheiten der Nase und des Nasenrachenraums, nebst Einer Abhandlung über Elektrolyse, mit 48 Abbildungen im Text, und drei Tafeln in Farbendruck.* Breslau, 1889. E. Morgenstern, 471 Seiten.

the examination of the lower parts of the choanae. He has also for some purposes employed, with excellent result, double and prismatic mirrors. He places great value upon digital examination. The author's views as to the relation of polypi to asthma are well known from his former publication. It is of great historical interest that the author has found a recommendation by Hippocrates of a treatment similar to his own sponge method. Voltolini believes that a general dyscrasia is the primary factor in malignancy, and he therefore recommends an energetic antiscabic treatment by Zittmann's decoction, aq. picca or arsenic to be added to local treatment.

With regard to adenoid vegetations, the author proves that he was the first to describe them, in 1865. He operates on these growths with the galvano-cautery. A very extensive account is given of naso-pharyngeal polypi. They always arise in early life, and have a tendency to retrogressive metamorphosis at a later period. It cannot, therefore, be recommended to perform severe operations, such as resections of bones, for their removal. They must be operated upon *per vias naturales*, by the aid of the rhinoscope. The best method for their destruction is electrolysis, and this method is also employed by the author for the removal of warty growths of the nose. Atresia and deviations of the choanae and septum are to be treated by the galvano-cautery. The most dangerous forms of epistaxis are caused by ulcerations of the septum. The author terms this condition *ulcus perforans septi*. Such ulcers must be treated by the galvano-cautery. The chapter on acute and chronic rhinitis is very interesting. In it we find not only good observations by the author, but also the views recorded of nearly forgotten authors. The mild treatment of rhinitis is worthy of imitation. In the chapter on hay fever, we read with interest that the author, the inventor and enthusiastic champion of galvano-caustic treatment, warns against the abuse of this treatment, so often employed. The remarks that local and general blood-letting is too little known, and too little practised, are very true. We must also agree with the author in the statement that mercury is more efficacious when administered by inunction than by any other method.

Of rhinoscleroma, the author says there is no doubt that it is more a dyscrasic than a local disease, and that it must be cured by constitutional treatment, such as decoction of Zittmann, or hydrotherapy. After a short description of syphilis of the naso-pharynx follows a description of electrolysis and electrolytic operations. Great merit appears to be due to the author for having introduced this method into practice, and there can be no doubt that it will have a great future. After giving a description of the apparatus and technique of the method, the author deals with the different affections in which it can be employed. He uses it for depilation of hairs growing in unusual places, for destruction of warty growths and naevi, and especially for the destruction of retro-nasal polypi. The results which he has obtained are very encouraging.

In an appendix the author relates his method of illuminating the nose, naso-pharynx, mouth, and larynx, by electric light. In one case he was enabled by this method to determine that the antrum of Highmore was filled with pus. Further observations are necessary to judge whether this

method will be so eminently satisfactory as a means of examination as the author believes.

Every reader of this work must admit that its author is not only a clever specialist, but an accurate medical observer, and an ingenious writer. The wood-cuts and chromo-lithographs are very well executed.

Michael.

ASSOCIATION MEETINGS.

61. Versammlung Deutscher Naturforscher und Aerzte.

Meeting at Cologne, September, 1888.

SUB-SECTION OF LARYNGOLOGY.

1. LENZMAN (Duisberg), exhibited a new galvano-cautery battery, which could also be used for illumination with incandescent lamps.

2. HOPMAN (Cologne), also showed an incandescent light for laryngeal illumination.

3. SCHEFF (Vienna), exhibited a sharp rotating spoon, for the removal of laryngeal growths by scraping.

4. KOCH (Luxemburg), read a paper on *Nervous Cough*, in which he referred to a case occurring in a young boy. The condition was treated by various medicaments without any effect, but was cured after a six weeks residence in a mountainous region. He believed "nervous cough" to be a central disease and medication to be useless.

MICHEL had seen a similar case in a man of fifty, and agreed with the author.

5. KOCH (Luxemburg), read the notes of a case of *Polypus of Tonsil*, which occurred in a young girl. It was pedunculated, springing from the left tonsil, and was proved microscopically to be a fibroma.

JACOBI and HEYMANN had seen similar cases.

6. VICTOR LANGE (Copenhager), read a paper *On the inhalation of fluids by means of the Spray*, in which he spoke of the disadvantages of the usual Siegle spray, and exhibited a mask for use with this apparatus.

7. RIETH (San Remo), also exhibited a new inhalation apparatus for continuous inhalation of medicaments.

8. LANGE demonstrated a *blunt hook for the removal of nasal polypi*, with which he operates through the anterior nares, after having introduced the finger into the naso-pharynx. A long discussion followed, in the course of which MEYER-HÜNI stated that he removed polypi with the finger, using for contra-pressure a tampon introduced into the nose.

9. TORNWALDT (Danzig), exhibited a new trephine for exploratory opening of the antrum of Highmore.

10. HEYMANN (Berlin), read a paper on a case of *Melanotic Alveolar Sarcoma of the Nose*. The patient, a man of fifty-eight, had had many operations for removal of nasal polypi, which always recurred. A tumour later occupied the left nasal cavity springing from the septum, which was removed with the cautery wire, and examined microscopically. There had been no recurrence for one and a half years.

HEYMANN also read notes of a case of *Carcinoma of the upper part of the Oesophagus*, which had been operated upon and removed by Professor Gluck. The patient, however, died four weeks later from inanition.

11. JACOB (Magdeburg), exhibited an *instrument for the removal of adenoid vegetations*, which consisted essentially of two ring knives. A long discussion followed, in which various speakers recommended different methods, but most agreed in recommending Gottstein's knife.

12. HOPMANN (Cologne), exhibited a patient in whom he had twice performed *laryngotomy for laryngeal papillomata*. For three years the patient had not had recurrence. Hopmann had performed this operation twenty-one times on seventeen patients. One case (carcinoma) ended fatally on the seventh day. He specially recommended the operation for children, on account of the frequent impossibility of operating intralaryngeally.

HOPMANN also showed an *enormous mucous polypus of the naso-pharynx*, which weighed eighty-four grammes; and exhibited a *pedunculated mucous polypus of the naso-pharynx*, which could be seen behind the velum. He also exhibited a *hard fibro-sarcoma*, which sprang from the palate.

13. MICHEL (Cologne) read a paper *On Disturbances of the Voice*. Early loss of the singing voice is caused by (1) overstraining the voice; (2) singing registers and music unsuited to that particular voice; (3) false tone production. All morbid conditions, even the slightest affections of the larynx, have a bad influence upon the singing voice. Slight affections of the naso-pharynx, hypertrophy of the tonsils, concretions of the tonsils and posterior pharyngeal wall, and hypertrophic lateral pharyngitis may affect the voice in a pernicious manner. All these affections impede the action of the soft palate.

SUB-SECTION OF OTOTOLOGY.

PROF. GUYE (Amsterdam) related further observations on *Aprosexia*, originating in nasal conditions. In three cases it was possible to restore the lost memory by removing the pathological condition. He differentiates three kinds of aprosexia—a physiological, a neurasthenic, and a nasal form. The latter can be cured by appropriate operation and treatment.

A long discussion followed the reading of this paper.

SUB-SECTION OF SURGERY.

HOFFA (Würzburg) read a paper *On the Results of Laryngo-fissure*. The author had performed this operation twice last year, on account of adhesions of the vocal cords, and in the second case for papilloma. Both cases were cured, and good voices remained. He had found recorded since 1879, 104 cases of total laryngo-fissure, the operation having been performed 18 times for malignant, 54 times for benign tumours, 13 times for foreign bodies, and 19 times for various causes. Of these cases, 4 died from the operation, the other 100 were cured within ten to eighteen days. Of 67 cases, 40 (60 per cent.) were cured with good result as regards the voice. In 22 (32 per cent.) hoarseness remained; and in 6 (8 per cent.) aphonia. The result as regards the voice depends mostly upon the incision being made exactly in the middle line.

Michael.

NEW PREPARATIONS.

Mineral Waters of "La Bourboule." (Ingram and Royle.)

THE waters of this French health resort are unique amongst mineral springs. Bourboule waters are limpid, and somewhat unctuous to the touch, exhale a slight odour of sulphur, and are chemically characterised by their strongly arsenical composition. An analysis shows them to be composed as follows:—

ANALYSIS OF MESSRS. J. LEFORT AND BOUIS, IN GRAINS PER GALLON.

Metallic arsenic	0.4935 grains.
Or arsenious acid	0.7567 "
Or arseniate of soda Codex Standard ...	1.9929 "

The subjoined shows the proportions of its other chemical constituents, per litre:—

Carbonic acid (free)	3.626 grains.
Chloride of sodium	198.842 "
" potassium	11.361 "
" lithium	trace
" magnesium	2.240 "
Bicarbonate of soda	202.440 "
" lime	13.335 "
Sulphate of soda	14.588 "
Peroxide of iron	0.147 "
Protoxide of manganese	trace
Silicic acid	8.400 "
Alumina	trace
Organic matter	trace

One litre (containing 28 milligrams of arseniate of soda) is equivalent to 21 drops of Fowler's solution. The waters are of the greatest possible service in the treatment of what the French express by the term the "dartreous diathesis" and its manifestations, and in scrofulous affections, whether of the eyes, throat or nose, glandular swellings and catarrhal affections of the upper air-passages, such as asthma, laryngitis, chronic bronchitis, and even pulmonary phthisis. The value of arsenic as a medicament is well known, and it is generally admitted that the composition and effects of a natural mineral water cannot be imitated by prescription. It is with great pleasure that we see that Messrs. Ingram and Royle have made arrangements for the introduction of this most valuable mineral water into England. One good point about Bourboule waters is that they lose none of their properties by bottling and transport. We predict for it an extensive application in this country.

"Elect" Cocoa. (Rowntree and Co.)

WE have received samples of this preparation, and from trial can speak of the delicacy of flavour and great palatableness of this particular preparation, which make it compare most favourably with the best cocoas in the market. The "Elect" extract of cocoa is guaranteed to be half as strong again as the cocoa essences and cocoa extracts ordinarily sold. It is further guaranteed to be absolutely free from sugar or starchy matters. It appears to us to be a most valuable preparation, and one deserving an extended use.

NOTE.

J. WALKER DOWNIE, M.B., F.F.P. and S.G., has been appointed Surgeon to the Department for Diseases of Throat and Nose in the Glasgow Western Infirmary, *vice* John Alexander, M.D., resigned.

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MEMBRANOUS RHINITIS.¹

BY FRANK HAMILTON POTTER, M.D., Buffalo, New York. (Lecturer on Laryngology, Medical Department of Niagara University.)

By the term *Membranous Rhinitis* is meant an acute inflammation of the nasal passages, in which the exudation forms a membrane covering partly or entirely the inflamed surfaces. This is the most prominent characteristic, but it differs in many other respects as to its course, susceptibility to treatment, etc., from the acute inflammation ordinarily seen in these parts. According to my observation, it occurs in about two per cent. of all cases of acute rhinitis.

These cases were, in healthy subjects, free from any hereditary or acquired disease. There was absence of any history of syphilis, rheumatism, or scrofula. One patient had had scarlet fever during childhood, which had left its mark upon the upper air passages. In this case there was partial destruction of the membrana tympani in the right ear, and the entire upper air tract was sensitive to changes in temperature. The personal history of the other cases was negative.

These attacks of membranous rhinitis were not associated, in any case, with any of the infectious diseases. In fact, with a single exception already mentioned, there was nothing to suggest a theory to account for the peculiar nature of the nasal inflammation; none of the patients had had diphtheria, and there was nothing to indicate its presence, either during the attacks or afterwards. One of these cases occurred in a member of my household, and therefore presented an excellent opportunity for observation as to its course, and to the effect of remedies upon it.

The history of these cases is as follows:—The attack begins like an ordinary acute rhinitis, excepting that the symptoms seem to be intensified. There is dryness and fulness of the nostrils, accompanied by a most disagreeable sensation of "tickling." This is persistent, and prompts the

¹ Read before the Medical Society of the State of New York, February 5th, 1889.

continual blowing of the nose, which, however, is entirely ineffectual. After the first day, the dry stage is followed by the stage of dilatation. There is a free discharge, watery at first, afterwards becoming denser, but never muco-purulent. The systemic disturbances are not severe. We have headache at times, not in all cases nor continually in the same case. There is frequently some constipation, easily relieved however. There is hardly a perceptible change in the temperature. The appetite is good, sleep somewhat disturbed, but not to a degree requiring treatment. The symptoms are for the most part local, and they are annoying both from their intensity and their duration. Without examination of the nostrils there would be little to indicate that you had to deal with anything but an ordinary acute inflammation which was more persistent than usual. This examination, however, reveals an interesting condition. By the third day of the disease it will be observed that the discharges, instead of being easily removed, cling to the surfaces with great tenacity; they form a white coating over most of the inflamed area, that is, over the turbinated bodies and over the septum. This coating cannot be either washed away or wiped away with absorbent cotton; points may be torn off with small forceps, but the membrane soon reforms. When you have succeeded in removing some of the membrane in this way the denuded surfaces present bleeding points, and are very tender. In spite of treatment, as will be seen, this condition lasts during the course of the disease.

In some respects this membrane is similar to that formed in diphtheria. It is dead white and opaque; it is firmly attached to the parts beneath; it is only detached with violence, leaving a bleeding surface. Another interesting distinction between this and the ordinary inflammation is the refusal of the tissues to respond to the contractile power of cocaine. The engorgement of the parts persists even under strong solutions, and this, of course, adds to the distress of the patient. This cannot be due entirely to the fact that the membrane prevents contact of the cocaine with the tissues, because it was observed in the first few days of the disease before the membrane had formed. It seems to be one of the essential qualities of this form of nasal inflammation, and may be used as one of the diagnostic points.

The duration of the disease, notwithstanding the most energetic treatment, both constitutional and local, was about three weeks. This is very different from the course of the usual acute rhinitis. Most cases of the latter can be limited by the modern treatment to hardly more than as many days. We are accustomed to assure our patients that if they will follow our directions their colds need not last more than three or four days, and this statement is, as a rule, justified. It is, however, necessary to be more guarded in an assertion of this kind, as is indicated by the study of the disease under consideration.

The treatment consisted in both constitutional and local measures. The first began with a hot bath at night, and the exhibition of 1-100 gr. of sulphate of atropia. The atropia was continued for a few days in doses of 1-200 gr. every 8 hours. Its effects were apparent in the pharynx, but it did not control the nasal symptoms, and the salicylate of soda was substituted in doses of 5 gr. three times a day. This was used on the

supposition of a rheumatic element in the case. It was, however, soon abandoned, as it seemed to cause a distressing headache, not present before, and not present after the drug was stopped. The bicarbonate of soda was then tried with negative results, and finally the bromide of potash in 20 gr. doses four times in the twenty-four hours. The latter seemed to have a good effect, the unpleasant sensations resulting from the long continued and persistent stenosis of the nasal passages were modified. It must not be supposed that no attempt was made to control the stenosis by local means. Cocaine was used from the first in the strength of from four to twenty per cent. It had the result of benumbing the parts and giving relief in that way, but no contractile effect could be observed. There seemed present an œdema of the tissues that prevented them responding to its influence. The combination of antipyrine and cocaine, as suggested by Dr. F. W. Hinkel,¹ of Buffalo, was then tried, but without result.

I then began systematically to tampon the nose with absorbent cotton, and this gave partial relief. Cocaine was first applied, and then the cotton was introduced, dry as a rule, though occasionally it was dipped in the cocaine solution before using. The dry cotton appeared to give the best result. It absorbed what moisture there was, and made pressure upon the œdematous tissues, and in this way relieved the stenosis temporarily. Often a series of cotton pellets was introduced one after another, each being left *in situ* for five minutes or more, and this plan seemed to work very well.

In one case menthol was used dissolved in oil in the strength of one per cent., and the cool feeling it produced was very agreeable to the patient; it was therefore used occasionally. As the disease gradually subsided, the cocaine recovered its contractile powers, and then, of course, restoration of the healthy state of the parts was hastened.

In one case a curious phenomenon was observed. The disease seemed to expend itself upon the left nostril in great part, the right nostril showing but slight disturbances. In the left nostril all the symptoms that have been described were present. The membrane was well formed, and covered the entire surface of the septum and of the turbinated bodies as far as could be observed. The stenosis was very persistent, and after continued tamponning would return in a short while. In the right nostril the membrane formed only in points here and there, the stenosis was easily relieved, and in every way the inflammation less severe.

In this case the disease recurred after several months, and in this second attack the left nostril seemed more affected than the right, though the contrast was not nearly so well marked as in the first attack.

I cannot say that the treatment controlled the course of the disease or shortened it in any way, though, of course, it added to the comfort of the patients. It is possible, however, as has been observed, that in the last days, as the disease was disappearing, it had something to do with hastening recovery.

¹ *New York Medical Journal*, October 20th, 1893.

There is very little reference in literature to cases of this kind. Dr. William A. Hammond in an article on "Coca : its Preparations and their Therapeutical Qualities, with some Remarks on the so-called Cocaine Habit," in the *Virginia Medical Monthly* for November, 1887, reports an attack of rhinitis in himself, that presented many characteristics found in the cases described in this paper. He says the membrane in his case was not unlike that formed in diphtheria, but was very loosely attached to the tissues beneath. In this latter respect it differed from my cases, but in other ways they agree so well as to lead me to think it was the same disease. In his case, as in those upon which the paper is founded, there was no tendency in the disease to spread beyond the nasal passages. It was limited entirely to the nose ; the pharynx even could not be said to show any evidences of disturbance.

In conclusion, one or two suggestions are offered for consideration. The drift of opinion to-day is towards a broader conception of the nature of disease. It is expressed in this instance by most observers holding that all inflammations of the air passages associated with the formation of a false membrane are related, and this relation is indicated by saying they are expressions of the diphtheritic poison. Ought not this opinion to be modified by saying that the great *majority* of these cases are so related ? Is this rule quite so universal as is usually held ? If we can have an inflammation of the nose characterized by the formation of a false membrane in which no trace of the diphtheritic poison can be discovered, cannot the same kind of an inflammation appear in the larynx or the pharynx ? Can it not also occur in the bronchial tubes and produce there a croupous bronchitis ?

In view of any criticism of the accuracy of observation concerning these cases of membranous rhinitis it is proper to state that I have always followed the opinions of Dr. Jacobi and Sir Morell Mackenzie in regard to the unity of the croupous and diphtheritic inflammations, and it was therefore with great interest that these cases were studied.

The questions involved in the consideration of the inflammations seen in the air passages cannot yet be said to be settled. And I trust the cases reported here will add something to the knowledge of the subject and stimulate further inquiry.

273, Franklin Street.

CASES OF MALIGNANT DISEASE OF THE THYROID GLAND.

By PROCTER S. HUTCHINSON, M.R.C.S., Assistant Surgeon to the Throat Hospital, Golden Square.

CASE 1. *Sarcoma of the Thyroid Gland.*—While conducting the clinic of Mr. Hovell during his absence, in April, 1888, the following interesting case of sarcoma of the thyroid gland came under my notice, and is perhaps worth recording, on account of such cases being rare.

The patient, R. P., a schoolmaster, aged fifty-three, came complaining of a swelling occupying the right lobe of the thyroid, which he had noticed three months. It was very hard, tender on pressure, and immovable. It had come on very rapidly, and was causing severe pain, shooting to the arms, dysphagia, and a husky voice. Laryngoscopic examination showed absolute fixation of the right cord in the cadaveric position. There was great pain at night, preventing rest. He was a thin man, and had lost flesh. The enlargement did not project very much. I showed the case to Dr. Greville Macdonald, who agreed in the diagnosis of malignant disease. I saw the patient two or three times, the enlargement remaining always as hard as a board. The patient died from exhaustion about a month from the time I first saw him—that is, about four months from the time of first noticing the tumour. I obtained a *post-mortem* in private, and found that since my last seeing the patient, a fortnight before, the tumour had swollen to double its size. The whole gland was found to be infiltrated with what seemed to be pus. It cut firmly on section like liver; it pressed firmly on surrounding structures, and to the vertebral column, but had not grown into them. Microscopic examination showed such a marked alveolar arrangement that the idea of inflammatory changes simply could be negatived. The cells, also, in the alveoli had a more definite arrangement and outline than pus cells, though they were somewhat smaller than the usual size of soft cancer ones. It is probable that the tumour, which had entirely replaced in the part examined the normal thyroid structure, was a small-celled cancer, though an alveolar sarcoma could not have been distinguished from it. This case illustrates what has been found in many others of thyroid tumour—the difficulty of determining whether the growth is sarcomatous or cancerous. The dysphagia and aphonia were caused by pressure, and not by the growth having involved either trachea or œsophagus. I did not find enlarged glands anywhere.

Owing to the autopsy being done under disadvantageous circumstances, I did not examine the other organs, but he had no symptoms of disease elsewhere, except one knee, which was swollen, probably from an injury he had had. I am indebted to Mr. Hovell's kindness for leave to publish the case, and to my brother, Mr. J. Hutchinson, junior, for the microscopical examination.

CASE II. *Carcinoma of the Thyroid Gland.*—J. H., a woman of fifty-six, attended Dr. Norris Wolfenden's (to whom I am indebted for the publication of the case) clinic on March 29, 1887, complaining of a swelling in the neck, which she thought had increased gradually for about five months. In early youth she had had a goitre, and this had never entirely disappeared. The tumour had been quiescent for a long period of years, and only latterly seemed to have taken a new development. It was found to consist chiefly of the right lobe of the thyroid and the isthmus, and to be of the size of an orange, very hard, though not knobby. The left lobe was affected to a smaller degree. A certain amount of breathlessness and slight degree of dysphagia were complained of. There was neither spontaneous pain nor pain on pressure of the tumour, the patient was not losing flesh, appetite was good, and the patient complained of little but the

annoyance of a swelling in the neck, and slight dyspnœa and dysphagia. The tumour was immobile both on deglutition and manipulation. After a brief interval of improvement under the usual medication, the dyspnœa and dysphagia gradually increased. The vocal cords showed signs of pressure upon the recurrent nerves, the left one being completely paralysed, and remaining in the cadaveric position, the right cord exhibiting some degree of abductor paresis. The patient began to look dusky, in the face especially, and the tumour became apparently larger and more fixed to surrounding structures than before. No pain was at any time complained of, but it was thought that the increasing dyspnœa demanded some operation for its relief. The development of the goitre in a backward direction, encircling the trachea and œsophagus so as to cause marked symptoms, led to the belief that the case was one of "strangulating goitre," probably of malignant nature. At Dr. Wolfenden's request Mr. Hovell made an attempt on June 6, 1887, to remove the tumour. On cutting down upon it, however, it was found that the malignant growth had already invaded the superjacent muscles, and cutting into the tumour, which was densely hard and quite bloodless, left no doubt as to its malignant character. From its deep connections it was not thought advisable to complete the operation, which was therefore abandoned, after cutting through the mass down to the trachea, with the object of relieving pressure as much as possible. But slight relief followed the operation, and after about three weeks the patient left the hospital for her home, where it was subsequently ascertained she died about six months after. Microscopic examination of a portion of the tumour showed it to be a scirrhus cancer. No glands were visibly enlarged during the course of the disease.

CASE III. *Carcinoma of the Thyroid Gland.*—The Rev. A. J.—, aged forty-nine, first attended Dr. Norris Wolfenden's clinic on February 8, 1887, complaining of a swelling over the right lobe of the thyroid. He had noticed his goitre four or five years. It had been not quite so large, and had been softer, and had remained nearly stationary. He took fluoric acid two years ago which made the swelling decrease. He had begun to feel great pain in it about two months before, and the voice had begun to be affected about the same time, being at one time reduced to a whisper, but was now clear and fairly strong. The neck measured 16 inches round on March 1, 1887. The left vocal cord was paralysed, remaining in the cadaveric position on phonation and respiration. The goitre gradually involved the surrounding structures, becoming very hard and nodulated, and pressing on the brachial plexus, causing very severe pain in the neck and arms. He was transferred to the care of Dr. Greville Macdonald in the summer of 1887. An abscess formed in the substance of the tumour in November, 1887, and was opened. The discharge was usually thin pus, mixed with blood, and smelt badly. Patient's general health kept fairly good, though there was considerable anæmia. The goitre became very hard over the clavicle until that bone was indistinguishable from it. There had been no marked dysphagia or loss of voice during the course of the disease while in the hospital. Later in December cough began to be troublesome, and the tumour seemed to be attached to the trachea and œsophagus, as well as the tissues on the opposite side,

being about the size of an orange. The swelling was subject to acute inflammation at times. On November 30, after sleeping in a damp house, it became very inflamed and painful. The glands became very hard and knotty in the neck. In December, 1887, the glands on the opposite side began to be involved; they were very hard, and about the size of walnuts.

The patient at this stage of the disease went home and was lost sight of. He died a few months later. His medical adviser considered it undoubtedly malignant though no autopsy was obtained.

MOUTH, TONSILS, PHARYNX, &c.

TANDBERG, J. (Fredrikshald, Norway).—**On the Dangers to Life in Operations for Hare-Lip, and the Causes of the High Mortality.**
Norsk Magazin for Lægevidenskabten, No. 1, 1888.

THE author draws attention to the fact that small children, operated on for hare-lip, not unfrequently die suddenly, and considers the cause of this to be the sudden change of the mode of respiration, after the child has been accustomed to draw its breath through a large opening. He advises not operating upon complicated hare-lip before the child is one or more years old, and uncomplicated hare-lip not until the child is several months old.

Holger Mygind.

FORCHHEIMER (Cincinnati).—**Diseases of the Mouth (Non-Surgical).**
Archives of Pediatrics, January and February, 1889.

THESE are two papers on stomatitis mycosa (thrush or soor).

The saccharomyces is the prime cause of this disorder. The fungus is everywhere distributed, upon every mucous membrane, and as spores in the air. The nature of the fungus is not cleared up, but it is not a milk fermentation, but one causing splitting of the hydro-carbons into alcohol and carbonic acid. The parasite is propagated by nipples and bottles in dirty nursing. This parasite does not seem to obtain a footing upon healthy mucous membranes, being found in the mouths of perfectly healthy children. A catarrh, or bruising or injury of the epithelial covering forms a spot for the development of the fungus. All conditions leading to rest of the parts (loss of movement in tongues or throats of persons with wasting or acute diseases, &c.) favour the growth. The parasite invades the epithelial layers, separating and embedding the cells. It irritates the surrounding tissues, but does not form pus except exceptionally. The subjective symptoms vary with the intensity of the affection. Pain is only present when the corium is attacked. The tip of the tongue is usually the first part affected, then the lips, spreading to the tongue and tonsils, when amygdalitis occurs. When the parasite has spread into the œsophagus the symptoms may become intense. This œsophageal infection is very frequent. Gastro-intestinal disturbance accompanies the

condition. The disease at the commencement is characterised by small, discrete, grey-white spots, covered with epithelium, and surrounded with a ring of injected vessels. They are removed with much difficulty, leaving a red, depressed, easily-bleeding surface. A little later the spots are raised, coalesce, and the whole tongue may be covered with membrane. Between the spots the mucous membrane is injected (catarrhal stomatitis), and the part lying next the first infected spot is usually the next to become involved (*e.g.*, tongue and lower lip). As the fungus drops off or is detached, slight ulcerations are produced, which may remain as ulcers, or again become covered with fungus. Thrush in an ordinarily healthy child is harmless, in a debilitated child is very serious. Thrush of the œsophagus is nearly always fatal. The younger the child, the more extensive the eruption, the worse the prognosis. As to treatment, prophylaxis, the prevention of abrasions, and cleanliness of nipples, bottles, and the infants' mouths is essential. All utensils should be disinfected by boiling water. The fungus must be removed, which is easier when an alkaline wash (*e.g.*, bicarbonate of soda) has been previously employed. All manner of medicines have been suggested. The author properly condemns the orthodox borax and honey mixture as adding fuel to the fire, and rarely finds it necessary to use anything but the bicarbonate.

Ulcers occasionally require touching with silver nitrate. Calomel in small doses, or very dilute doses of corrosive sublimate almost always act as specifics in the intestinal troubles of thrush. If the œsophagus is stopped up by plugs of growth, it seems most expedient to introduce the soft catheter into the stomach. This may displace some of the plugs and cause them to be extruded by vomiting.

R. Norris Wolfenden.

LINGARD, ALFRED (London).—Some further Notes on the Etiology of Ulcerative Stomatitis, or Cancrum Oris. *Lancet*, July 28, 1888.

THE author considers that this disease depends upon a micro-organism, consisting of a long thread-like growth, which is found in great numbers at the line of extension of the necrotic patch.

The disease occurs in man and in the lower animals, and is communicable by inoculation.

In the lower animals, necrotic patches are found in the substances of the heart after death from the disease. These lesions are not met with in man, probably on account of the death of the patient uniformly occurring at an early period of the disease.

Hunter Mackenzie.

HARRISSON, DAMER (Liverpool).—A Case of Acute Glossitis. *Lancet*, July 7, 1888.

THE patient was a lad of fourteen, and the complaint was apparently caused by biting his tongue severely whilst at dinner. Recovery followed the making of two incisions into the dorsum, half-an-inch on each side of the raphé.

Hunter Mackenzie.

SCHWIMMER.—Papayotin in Treatment of Fissures of the Tongue. *Ther. Gaz.*, January, 1889.

A SOLUTION of one to two parts of papayotin in ten parts of glycerine and distilled water is applied to the fissures (which should be previously

dried) five or six times a day. Schwimmer reports success in twenty-four out of twenty-five cases when the condition has resisted treatment by chromic acid, iodoform, and silver nitrate.

R. Norris Wolfenden.

COUÉTOUX.—On the Ptyalism called "Essential," a Symptom of Adenoid Vegetations. *Rev. Gen. de Clinique et Thérap.* December 13, 1888.

THE author thinks the ptyalism, sometimes grave in its consequences, can be traced to the presence of these growths, and he has frequently noted that this symptom has disappeared after removal of the growths. Joal.

BELL, J. (Hong Kong).—Primary Syphilis of the Tongue. *Lancet*, August 4, 1888.

THE lesion was situated on the middle third of the left side of the tongue, and was believed to have been due to infection by a common pipe. It appeared to have had a very long period of incubation (fifty-one days).

Hunter Mackenzie.

MARSH, HOWARD (London).—On the Elements of Success in the Operation for Cleft Palate. *Lancet*, July 7, 1888.

THESE are (1) Age: Not to operate too early—between four and five years is the best average age. In difficult cases the chance of success steadily increases as childhood advances. (2) Attention to the general health before the operation. (3) The width and the shape (the length is immaterial) of the fissure, and the conformation of the bones at the roof of the mouth.

Operation and after-treatment details are fully given.

Hunter Mackenzie.

TRÉLAT.—Epithelioma of the Tongue, Fauces, and Tonsil. *Gaz. des Hôp.*, October 25, 1888.

CLINICAL remarks upon a case at the Hôpital de la Charité, upon which the author was about to operate. The patient was a man of forty-seven, strong and vigorous, affected with epithelioma of the left side of the tongue, fauces, and tonsils. He had experienced pain in the left ear for eight months, which had increased, so as to render deglutition difficult. At the present moment there was adenitis at the angle of the jaw, great pain, ulceration of the edge of the tongue, the faucial pillar, and tonsil, accompanied with induration. A year previously Trélat had spoken upon a similar case, concluding that operation was useless in cases of this kind. Of thirteen patients four had succumbed rapidly (mortality, 30·5 per cent.). One died while being carried to the bed after operation; the second died the third day after operation from syncope while moving in bed; another died on the third day; and the fourth died from collapse the day of the operation—all dying from syncope or very rapid asphyxia. Compared with cases reported by other surgeons, this termination is unusual, most cases succumbing from phlegmonous inflammation of the mediastinum, pneumonia, or septicæmia. The mortality is from 30·5 to 42 per cent. (Polaillon). In the 60 to 70 per cent. who escape immediate

death recurrence is very frequent—generally within a year. Trélat, however, had recently seen a patient, upon whom he had operated last year, and who had been over a year without recurrence, and was now in excellent health, and without glandular enlargements. He decided to operate in this case, because the patient was vigorous, and begged for operation. Trélat's external incisions consist of a vertical one of eight to nine centimètres, as in cutting down on the external carotid, and a second one parallel to the border of the inferior maxilla. Instead of tying the arteries as they are come upon, he prefers primary ligature of the external carotid. He prefers not to resect the inferior maxilla if it can be avoided. In the patient in question, he would commence with ablation of the glands, and first with the sub-maxillary.

R. Norris Wolfenden.

SETTERBLAD.—*The Treatment of Angina Tonsillaris.* *Swedish Medical Society, July 9, 1888.*

THE author recommended strongly the use of guaiac, which he had used a great deal after the recommendation of this drug in Mackenzie's book on diseases of the throat. He recommended the following formula :—

Pulv. resin, guaiac, gram. 7'50
 Sacchar. pulv. „ 17'50
 Paste cacao „ 25'00
 M. fiat trochisci, No. 50.

Dose : One lozenge 1-6 times daily during two days.

Holger Mygind.

BUCHHOLZ, J. (Norway).—*Primary Syphilitic Ulcer of the Tonsil.* *Tidsskrift for praktisk Medicin, 1888, No. 13.*

A SHORT description of a large, deep ulceration, with sharp edges and pulpy base, of the right tonsil in a woman, between forty and fifty years old. The author, however, did not find any other syphilitic symptoms in this patient, neither at the first examination nor later on, and seems to found his diagnosis only on the circumstance that the woman had nursed a baby with hereditary syphilis, and that the ulcer disappeared under treatment.

Holger Mygind.

CATUFFE—*Hæmorrhage after Excision of the Uvula.* *France Médicale, January 4, 1889.*

THE resection of a small portion of the uvula was followed by very excessive hæmorrhage, which probably proceeded from wounding a large artery situated on the posterior aspect of the uvula. All hæmostatics locally applied failed, and the hæmorrhage only ceased after applying a hæmostatic clamp.

Joal.

FULLER (Brooklyn).—*Case of Alarming Hæmorrhage following Excision of the Tonsils.* *Amer. Jour. of the Med. Sciences, 1888.*

THE patient was a young man, an athlete, twenty-five years of age, and the tonsil was removed with a Mathieu's tonsillotome. All hæmorrhage had apparently ceased, when five and a half hours after the operation, the

patient became faint, and vomited a quantity of blood. Seven hours after operation free oozing was found to be going on from the cut surface, but no bleeding vessel was found. A long list of styptics was applied, as well as pressure, but failed to arrest the hæmorrhage. All through the night bleeding went on, until the patient was reduced to a condition of great prostration, necessitating frequent hypodermics of brandy. It was decided by the author that the common carotid should be ligatured. The tightening of the ligature did not, however, arrest the hæmorrhage, as was expected. Three hours after, transfusion of twelve ounces of saline solution was performed; the pulse returned, and from this time there was no further hæmorrhage, and the patient made a good recovery.

The author is of opinion that such a case as this occurs only about once in a thousand operations, and that very hard, fibrous, scirrhous-like tonsils, preventing the proper retraction of the cut vessels, and leaving them open, are very liable, on removal, to lead to excessive bleeding. The patient in question was not a "bleeder." Many cases have occurred in which alarming hæmorrhage has ceased only after the patient's fainting. This was probably the explanation of the arrest of bleeding in this case. The common carotid was tied in this case because it is recommended by authorities on account of the uncertainty of origin of the vessels supplying the tonsil. It was, however, an error, because it did not arrest the bleeding.

In future cases the author would depend upon pressure, hæmostatics, and placing the patient in an upright position to encourage fainting; and if the patient were not a "bleeder," would expect to arrest the hæmorrhage by these means.

R. Norris Wolfenden.

GAREL (Lyons).—**Chronic Encysted Abscess of the Tonsil, consecutive to acute Suppurative Amygdalitis.** *Annales des Mal. du Larynx, etc., Jan'y, 1889.*

THE author refers to the rarity of this condition, referring to Noquet's case of chronic abscess in the stump of a tonsil, to two cases of Heryng's, and to a case of Grynfelt's. He then gives the details of three cases occurring in his own practice. In one of these cases a spontaneous cure had been effected, but the abscess refilled and remained encysted for a month, when it burst without intervention, and left the tonsil with a vegetating aspect, and presenting a great anfractuosity. In another case pus had been freely evacuated with a bistoury, and all pain had disappeared. A month after these reappeared, the patient expectorated foetid pus, and for twenty-three days the condition remained stationary. The galvano-cautery point was plunged into a cavity which discharged a quantity of pus. This cavity was afterwards touched with tincture of iodine, and a cure effected. In the third case an abscess had been opened with a bistoury, but pus continued subsequently to be discharged, and a fistula in the anterior pillar, of about a centimètre in length, was found. After three cauterisations the fistula was cured, and suppuration ceased. The author strongly recommends the use of the galvano-cautery in these conditions. He also speaks highly of ignipuncture in hypertrophied tonsils, as compared with tonsil-tomy, especially in such a case as is described by him, in which, although

double tonsillotomy had been performed in infancy, the patient had had thirteen or fourteen attacks of suppurative tonsillitis between the ages of fourteen and twenty.

R. Norris Wolfenden.

PASTEUR, W. (London).—**Abscess outside the Tonsil, in an Infant, causing Dysphagia and Dyspnoea, relieved by Operation in the Neck.** *Lancet*, July 14, 1888.

THE region involved in the abscess was the cellular tissues outside the right tonsil, and the tonsil itself; cause unknown.

An interesting point in the case is that, after the evacuation of pus, the child remained quite well for about four months, when another abscess in exactly the same situation formed, and was again successfully treated by the same operation.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—**Origin and Evolution of the Tonsils.** *Lancet*, September 29, 1888.

A LEADING article having reference to the researches of Retterer on this subject. —*Journal de l'Anatomie*, September, 1888.

Hunter Mackenzie.

BLACKADER (Montreal).—**Retro-Pharyngeal Abscess.** *Arch. of Pediatrics*, February, 1889.

THE author relates three cases occurring in infants under a year old. A review of the literature of the subject has impressed the author with the frequency with which these cases remain undiagnosed, or receive faulty diagnosis, sometimes until spontaneous rupture takes place or death from suffocation, or inanition occurs. The symptoms may resemble and be mistaken for catarrhal laryngitis, membranous croup, cedema of the glottis, and perhaps tonsillitis and foreign bodies in the larynx. In every case of suspicious symptoms palpation with the index finger should be performed, though sometimes difficult. The tumour, if seen early, is round or oval, generally a little to one side of the median line, and fluctuation can usually be made out. The symptoms which should attract attention are dysphagia, dyspnoea, cough, alteration of the voice (nasal or palatal), with more or less stiffness of the neck. The amount of pain, pyrexia, and general disturbance depend on the course, whether acute or chronic, the acuter cases being marked by vomiting or convulsions and severe pain, the chronic ones being insidious. Blackader is of opinion that there is but one correct course, viz., early incision. The safest plan is to draw off the greater amount first by aspiration, and the remainder by a vertical incision. A bistoury guarded to the tip may be employed, the child's head being bent forward to allow the pus to flow out of the mouth.

If there is any tendency to pointing externally, Chiene's or Hilton's proposition to open it externally may be adopted.

R. Norris Wolfenden.

EDITORS OF "LANCET" (London).—**Swallowing Artificial Teeth.** *Lancet*, August 25, 1888.

THE most common form of artificial denture involved in this accident is one consisting of four or five teeth mounted on a metal frame, and having clasps or bands which fasten round molars or bicuspid. If such a band

is not properly adjusted, or if decay affect the teeth to which the band is attached, then it is only kept in place by the tongue and what little suction there may be. Persons wearing small cases should be warned of the danger arising from possible looseness or ill-fitting. Hunter Mackenzie.

CLUTTON, H. H. (London). **A Case of Œsophagotomy for an Impacted Artificial Plate—Recovery—Remarks.** *Lancet*, July 7, 1888.

A RECORD of a case from St. Thomas's Hospital. Hunter Mackenzie.

WYETH (New York).—**Spasmodic Stricture of the Œsophagus.** *The International Journal of Surgery*, January, 1889.

At the Surgical Clinic Dr. Wyeth related the case of an old gentleman, aged sixty, who was referred to him for treatment from South Carolina. The history was that in May last the patient had swallowed a fish bone, which occasioned much irritation of the throat for a number of weeks. In June he first experienced difficulty in deglutition, which gradually increased, so that for some time he had been unable to swallow food. Dr. Wyeth examined him with an œsophageal bougie, and found that it was not possible to pass the instrument without the use of more force than he was willing to employ. He then took an ordinary soft urethral bougie, and noticed that when it got down a certain distance the constrictor muscles shut down upon it like a lid preventing its progress. The patient was now told to swallow, and as he did so the instrument slipped in with the exercise of very little force. This is a point worthy of remembrance and is not spoken of in the books. Careful examination of the throat with the finger failed to disclose the foreign body. The case is probably one of spasmodic stricture of the œsophagus. The fish bone probably produced a local irritation of the pharynx, and this gave rise to a spastic condition which was ready to be lighted up. R. Norris Wolfenden.

LEMOINE.—**Simple Ulcer of the Œsophagus.** *Rev. Gen. de Clinique et Thérapeutique*, November 15, 1888.

IN appearances, simple ulcer of the œsophagus resembles that of the stomach. It is seated by preference in the lower third of the canal near the cardia. Its commencement is insidious, and one can scarcely say truly what are the signs accompanying its development since one can rarely observe patients at this period. Later on special phenomena occur, pain, dysphagia, vomiting, and hæmatemesis. There is no relation between the seat of the ulcer and the pain. This occurs in crises and during the passage of food, and is scarcely suffered if strict diet is observed. Vomiting and dysphagia are especially characteristic. At first solids are swallowed with difficulty, then liquids, the œsophagus contracts on the foreign body and rejects it through the mouth. Simple ulcer of the œsophagus is curable. It may lead to contraction, but this is curable as Debar has demonstrated. Joal.

NOSE, NASO-PHARYNX, &c.

POTIQUET.—Critical Study of Caseous Coryza. *Gaz. des Hôp.*, February 2, 1889

THE author vigorously attacks the opinion of Duplay, who, in 1874, in his treatise on pathology, described a caseous coryza, founding his description on five cases. Potiquet says that of these five cases, one was probably a case of suppuration of the maxillary sinus, two resembled rhinoliths, and two others resembled follicular cysts of the superior maxilla. He then criticises the observations published by Périer, de Bournonville, d'Azambuja, Cozzolino, and concludes that the term "caseous coryza" is an artificial conception, due to errors of diagnosis or inexact appreciation of facts, and that it ought to be abolished.

Joal.

POTTER, F. H. (Buffalo).—Notes on the Treatment of Acute Coryza. *Buffalo Med. and Surg. Jour.*, January, 1889.

THE author condemns the practice common in America of sleeping with the windows open. All the lower animals by burying the nose into the body endeavour to get warm air inspired. Rapid cooling of the body also leads to the development of colds. Another hygienic measure of great importance is taking a cold bath in the mornings. Proper clothing is also necessary. It is a mistake to condemn the neck-scarf in all cases. It should be worn by certain patients according to the temperature of the day. Chronic diseases of the throat or nose should be treated. If a cold comes on towards evening, a hot bath should be taken, followed by 1/100—1/60 grain sulphate of atropia. If the latter disagrees even in reduced dose, quinine (about ten grains) may be substituted. During the next day the nose and throat should be washed out with warm alkaline spray or douche, the turgescence of the nasal tissues be reduced with cocaine, and the entire surface be covered with a coating of an unirritating oil, of which the best is oleum petrolina. This should be done about three times a day. If the cold is first noticed in the morning the treatment should be reversed, local treatment being given during the day, and general treatment at night. Colds so treated will only last a couple of days, whereas if left alone they will take two or three weeks.

R. Norris Wolfenden.

ASTIER.—Lactic Acid in the Treatment of Nasal Affections. *Rev. Clinique et Thérap.*, February 7, 1889.

THE author has employed lactic acid for a year with success in the treatment of hypertrophies of the nasal mucous membrane. The solution is introduced into the nasal cavities on a wool tampon fixed to the end of a stem, and vigorous friction movements are made over the whole extent of the turbinated body. The susceptibility of patients varies. Astier employs a solution ordinarily of 10 grammes of lactic acid to 15 grammes of water.

If there is excessive reaction the application should be made only every three days ; in cases, however, in which there is insignificant inflammation it may be applied daily. In five-sixths of such cases the treatment is completely successful, and should be continued for a time varying from two to six weeks. At the end of this time it would be necessary to employ the galvano-cautery, the application of which, though more energetic, is more painful, and often provokes great hæmorrhage. Lactic acid gives good results also as a modifier of diseased surfaces, in cases of suppuration, of formation of crusts in the nasal fossæ. In seven cases of true ozæna the author has obtained marked benefit with this application. Joal.

SETTERBLAD.—**Bleeding from the Nose.** *Swedish Medical Society, Stockholm, June 19, 1888.*

THE author related a case of a young girl aged ten, with heart disease, in whom the blood was sometimes seen to spout vigorously from a ruptured artery at the anterior part of the septum. Holger Mygind.

FAUCHON. — **Irrigations with Citron Juice in severe Epistaxis.** *Bulletin Thérapeut., December, 1888.*

THE case of a patient attacked with bleeding from the nose, for which had been employed compresses of cold water to the forehead, tamponning anteriorly the nasal fossæ, irrigations of hot water, and which was finally arrested by injections of citron juice by means of a small glass syringe. Joal.

CHARAZAC.—**Rhinoliths.** *Rev. Médicale de Toulouse, August, 1888.*

THE centre of the calculus is generally composed of a foreign body which has been introduced intentionally into the nasal fossæ, or which has penetrated the choanæ from vomiting. Around the foreign body are deposited calcareous concretions, carbonate and phosphate of lime. Rhinoliths cause a unilateral purulent, fœtid flow—sometimes tumefaction of the nose, headaches, epistaxis, and different nasal reflexes. Joal.

SEILER, C.—**The Surgical Removal of Gummatous Growths in the Nasal Cavities.** *Int. Journ. of Surgery and Antiseptics, April, 1888.*

THERE are circumstances in which the general rule not to remove such growths surgically may be departed from. The author relates two cases in which he operated. In one case purple red, soft elastic growths sprang from each side of the septum, occluding the left nasal cavity completely, and the right partially, obstructing respiration, and accompanied with head pains, especially on the left side. The growths looked like sarcoma. They were scraped off with a sharp spoon, with very little bleeding or pain. Microscopically, the growths proved to be gummatous. The author was afraid on discovering the nature of the tumours that his surgical interference would lead to extensive ulcerations, but the patient rapidly recovered. The second case showed reddish masses of tissue springing from each side of the septum, and occluding the nares, and the had constant headache, sleeplessness, and muco-purulent and offensive

discharge from the nose. She had been for a long time under treatment for syphilis. The growths were removed, as in the previous case, by the sharp spoon. Two months after the growth had recurred. It was again scraped off, and by frequent treatment has been prevented from again recurring. The nasal cavities are now free from obstruction, and there has been no ulceration anywhere.

The history of these two cases teaches the author "that when a "gummatous growth is situated so as to interfere by its presence with "the physiological function of an organ, and it is possible to remove the "tumour by surgical means, thereby establishing the normal functions of "the organ, it is better to proceed surgically than to wait for the often "slow action of internal medication."

R. Norris Wolfenden.

ROSENTHAL.—**Malformations of the Nasal Septum, and their Surgical Treatment.** *Thés.*, Paris, 1888.

FROM researches upon the cadaver the author divides malformations into six kinds :—

1. Simple curvature without thickening.
2. Curvatures with thickenings or spurs.
3. Sigmoid deflections in vertical or antero-posterior direction.
4. Sigmoid deflections of one or other kind, with spurs.
5. Spurs without deviations of the septum.
6. Zig-zag deviations.

The author's anatomical researches have been conducted on 11 fresh crania, upon which he has made diverse sections, and on 2018 crania besides, in the Museum of the Anthropological Society of Paris. The etiology of the affection is very variable—*e.g.*, traumatism, obstruction of a nasal fossa, faults of development, &c. The author reviews the different methods of treatment in vogue.

Joal.

STRAZZA.—**A Rare Case of Tumour of the Nasal Septum.** *Annales des Mal. du Larynx*, December, 1888.

THE case of a child who attended Gougenheim's clinic at the Lariboisière fifteen days after having fallen upon the nose. In the left nasal fossa a tumour was found implanted upon the septum, with a very large base. After having penetrated into it with a Pravaz syringe, thin rosy-coloured liquid was drawn off. Three days after this the operation was repeated, then the patient blew out a small piece of clot and was cured. The case was a hæmatoma of the septum, interesting on account of the nature of the fluid drawn off, which did not permit one to think of sanguineous origin.

Joal.

GARRIGOU-DESARÈNES.—**The Treatment of Deviations of the Nasal Septum.** *Journ. de Méd. de Paris*, February 3, 1889.

AFTER studying the etiology and symptomatology of this condition, and indicating the sanguinary operations sometimes necessary for its cure, the author describes a new instrument which he has devised, composed of two blades, with corresponding convexity and concavity, which are placed in each nostril; these two blades are tightened by a screw, and

break the cartilage. Ordinarily the author leaves the instrument *in situ* for about five minutes, then makes antiseptic irrigation and places in the obstructed nostril small lamellæ of luminaria. The operation is painful only at the moment of fracturing the cartilage. Joal.

ROBERTSON, WILLIAM (Newcastle-on-Tyne).—A Plea for the use of the Rhinoscope. *Lancet*, August 18, 1888.

NOTES of two cases. In one, tertiary syphilitic ulceration of the posterior nares, causing deafness, was found. In the other, a nasal polypus in the same region was discovered. In both cases discovery of the lesions indicated appropriate and successful treatment. Hunter Mackenzie.

RANGE.—Tornwaldt's Disease and the Bursa Pharyngea. *Bulletin Médicale*, January 13, 1889.

THE author has made numerous rhinoscopic examinations, and has made anatomical researches upon seventeen subjects, and at the spots indicated by Luschka and Tornwaldt he has not found any cavity which can be differentiated by any special characters from other glandular crypts. On the posterior wall of the pharynx he has not found anything recalling the ampulla of fifteen millimetres, which Luschka calls the *bursa pharyngea*. He thinks also that there cannot be a question of "bursa" in any sense of the word, even admitting that the term "bursa" designates a broad and superficial recess (Ganghofner), for this median recess is far from representing any anatomical constancy in adults. Joal.

ANNANDALE (Edinburgh).—The Removal by Operation of Naso-Pharyngeal Tumours. *Edinburgh Medico-Chir. Soc.*, January 16, 1889.

HE described an operation which he had lately employed with success in three cases of this kind. Though some of the steps were not original, it had not as a whole been practised before. It consisted in the free exposure of the anterior nares by the separation of the upper lip from its attachments, and by division of the nasal septum. The hard palate was then sawn through, the soft palate divided, and the two superior maxillæ forcibly separated. It was found that this forcing apart of the jaws increased the available space to a remarkable degree. In the cases where he had operated, he reckoned there was a clear gain of one inch. The finger was thrust through the gap and the connections of the mass exactly ascertained. The tumour might be dragged away by the finger or by forceps, or scraped with a sharp spoon. The space was then plugged antiseptically, and the hard and soft palates brought together. Professor Annandale claimed for the method the following advantages: (1) It was simple and produced no deformity. (2) The procedure formed the preliminary stage for further operation, if it were deemed necessary to remove the whole or part of the upper jaw. (3) The central section was accompanied by less bleeding. He had already removed three tumours in this way. The first, a fibroma, bled so much that transfusion had to be performed about ten hours after the operation; but the patient made a good recovery and was now well. The second case was that of a young man,

on whom he had operated when in America, at the International Congress. The tumour turned out to be a sarcoma, and recurrence had taken place. The third was a lad from whom he had removed a fibroma of considerable size. This patient was shown with the wound practically healed.

Prof. SIMPSON said he had seen Middledorpf, of Breslau, operate a great many years ago on a tumour such as those described by Prof. Annandale by means of the galvano-caustic wire. Mr. Annandale's paper was of value because of the original procedure he had devised for getting access to the root of the disease. It was new to him that so much space could be gained splitting in the centre the palatal portions of the superior maxillæ, and he considered a supplemental anatomical research would add to the value of the paper.

Mr. CATHCART thought the amount of space gained depended on the age of the patient. With a full grown hard skull it would be very difficult to wrench aside the cut parts to such an extent, but with a young skull he thought it would be easy. A greenstick fracture bending the wings of the sphenoid and the zygomatic arch probably occurred. One advantage over the galvano-caustic wire of this operation was that they could be pretty certain of getting away the whole of the growth. He did not, however, know whether recurrence had been observed after the use of the wire. He asked Mr. Annandale if he did not think he could accomplish all he desired by incising the soft palate alone. If he could do so it would be a great gain.

Dr. MACKENZIE JOHNSTONE said Prof. Annandale had brought before them three successful cases, but the statistics of these cutting operations were very formidable. He considered that since the introduction of cocaine a large amount of space for manipulative procedures could be obtained behind the soft palate, and that therefore no case should be submitted to the cutting operation till these manipulative procedures had been tried and had failed.

Mr. ANNANDALE said Esmarch and the American surgeons who witnessed his second operation were astonished at the amount of space gained. Before he tried it in his first case he asked Sir William Turner if it could be done in the dead body, and was told it could not. Division of the soft palate had been tried and had failed to give the necessary access. His best answer to Dr. Mackenzie Johnstone was the fact that his third case had been sent to him by Dr. M'Bride. He believed that in the majority of these cases a cutting operation would be found necessary.

Maxwell Ross.

NETCHAEFF, Dr. PIOTR M. (Moscow).—On Reflex Neuroses Depending upon Naso-pharyngeal Disease. *Meditsinskoï Obozrenië*, Nos. 9 and 10, 1888, p. 864.

The author describes, with minute details, three cases of an extremely instructive kind.

CASE I.—A well-made and well-nourished busy advocate, aged forty, had been enjoying excellent health up to November, 1886, when one day, after much excitement and anxiety in connection with some professional

affairs, he had been suddenly attacked by aphasia with numbness and pricking about his right hand, right cheek and tongue. In a couple of minutes, aphasia had permanently disappeared, but from that time he had commenced to suffer very often from attacks of numbness in the said parts, associated with twitchings about the left eye. The paroxysms had been induced especially by any attempt at reading or writing, which had been invariably followed, in about ten or fifteen minutes, by the feeling of excessive fatigue, obfuscation of sight, and numbness. Ultimately the gentleman had become utterly unable to work, and hence had fallen into a state of profound hypochondriacal depression. After having been unsuccessfully treated by a series of doctors, he sought at last, in the summer of 1887, Dr. Netchaieff's advice. A minute physical examination failed to detect anything abnormal about the patient's organs, except a slight nasal catarrh, from which he had been suffering of late fairly frequently. The naso-pharynx, however, was not examined on that occasion. The gentleman's state remained about the same up to February 1, 1888, when the author was hurriedly summoned to him on account of an extremely severe attack of numbness and pricking pain, which this time appeared in the left hand and cheek, and were accompanied by a peculiar sensation about the head, aural noises, cardiac pain and palpitation, and general prostration. A careful examination again and again did not elicit anything wrong, except an apparently trifling catarrhal rhinitis and pharyngeal catarrh with a scanty mucous expectoration. Luckily for the patient, the nasal cavity was looked into this time. There were found, general congestion of the mucous membrane, especially pronounced on the nasal septum and the fornix of the cavity; considerable enlargement of the right middle turbinated body with stenosis of the corresponding meatus; slight injection and atonic state of the pharyngeal mucous membrane; and a papilloma, of the size of a cherry stone, situated between the left Eustachian tube and choanæ. Having now arrived at the conclusion that the patient's sufferings might be, after all, caused by the naso-pharyngeal lesions, the author painted the whole cavity with a 10 per cent. solution of cocaine. A striking relief followed almost immediately. About ten days later, the hypertrophied tissue over the turbinated body was removed by means of a galvano-cautery. On the next day, the gentleman was found to be in excellent spirits and free from all traces of his former sufferings; he was now able to work without any fatigue, etc., and he has remained perfectly well ever since.

CASE II.—A lean, but generally healthy, merchant of thirty-eight had been suffering since his twentieth year from frequently recurring (four or five times a year) angina and catarrhal rhinitis, accompanied with fever, and usually with moderate nasal bleeding, and since his twenty-third year from most agonising spasms of the gullet, occurring especially on swallowing fluids, and associated with an extreme difficulty of breathing, and sensation of immediate suffocation. Of late the spasms had been occurring even on the patient swallowing his saliva, and sometimes on his performing rapid movements. Notwithstanding his having been incessantly under treatment (by all possible means), the man "had been living in an unabated intolerable fear of death from suffocation." The

examination (by the author) revealed nothing abnormal, except an enlargement of the right inferior turbinated body and chronic swelling of the right half of the posterior wall of the pharynx. To elucidate the matter, Dr. Netchaieff painted the pharynx with the cocaine solution, and then made the man swallow a mouthful of water. No spasms occurred. The parts were, without delay, thoroughly burned with a galvano-cautery. Several hours later all the symptoms disappeared, leaving no traces. Recovery proved to be permanent.

CASE III.—A well-nourished and generally healthy-looking married lady of thirty-eight applied to the author on account of attacks of dyspnœa, palpitation, headache, and giddiness of one and a half year's standing, induced by any attempt at walking, and intensified during her catamenia, all possible treatment having proved of no avail. The only physical morbid change found by the author was an enlargement of the right lower turbinated body. Two applications of chromic acid were rapidly followed by a complete and permanent recovery.

Discussing his interesting cases, Dr. Netchaieff dwells mainly on the following points:—(1.) The cases represent typical instances of reflex neuroses, starting from a neglected diseased state of the naso-pharynx. Case I. is that of an intermittent one-sided reflex spasm of cerebral vessels, with consecutive anæmia of the corresponding hemisphere. It is yet unique in international literature. The same may be said in regard to the Case II., characterised by reflex œsophageal spasm. (2.) Anatomy and physiology furnish a satisfactory explanation for the mechanism of the neuroses. The turbinated mucous membrane contains the so-called cavernous bodies (Zuckermandl), regulated mainly by the sphenopalatine ganglion (Aschenbrandt). The latter structure constitutes a link, communicating the sensitive nerves of the nasal mucous membrane (supplied by the first and second branches of the fifth nerve) with the carotid plexus and vagi. Irritation of the trigeminus (Kratschmer) and olfactory (A. Gürevitch) regions of the nasal mucous membranes gives rise, in a reflex way, to an expiratory tetanus and retardation of the cardiac action, with increased arterial tension. It is well known, further, that the nasal circulation stands in an intimate connection with the cerebral one. The same holds true with regard to the lymphatic tracts (Axel-Key, and Retzius). (3.) That reflex neuroses may be caused by morbid states of the naso-pharynx has been demonstrated clinically (and that beyond any doubt) by a series of authors, especially by Voltolini, Schaeffer, Hack, Goetze, Sommerbrodt, Guye, Robinson, Ruault, Joal, Fraenkel, &c.

Valerius Idelson.

LUC.—Note on a case of Naso-Pharyngeal Tuberculosis. *Archives de Laryngologie, February, 1888.*

THIS was the case of a patient with phthisis, having at the same time double epididymitis, induration of the pulmonary apex, and ulcerations in the pharynx. There was also an ulceration on the inferior turbinated of the right nasal fossa.

The ulcerations of the pharynx healed under scarifications and local application of lactic acid, and the nasal ulceration improved under the

same treatment. Luc is of opinion that many patients who would have been formerly condemned to certain death can be saved, if physicians will realise the necessity of destroying from time to time the infecting foci (bone, testicle, larynx, nasal fossæ, etc.).

Joal.

BRONNER, ADOLPH (Bradford).—**The Local Treatment of Empyema of the Maxillary Sinus.** *Lancet*, August 25, 1888.

ALTHOUGH bearing a different title, the substance of this paper, and the cases recorded in it, appear identical in all essentials with one previously published by the author, and already abstracted for this Journal (Vol. II., p. 375).

Hunter Mackenzie.

BAYER.—**Contribution to the Study and Treatment of Empyema of the Antrum of Highmore.** *Rev. Mens. de Laryng.*, January, 1889.

THE author complains that specialists who have written on this subject have ignored the existence of a work read by him in 1886, at the fifty-ninth meeting of German naturalists and physicians. In the *compte-rendu* of this meeting is to be read, "Bayer recommends enlarging the natural orifice, by which the maxillary sinus communicates with the nasal fossa in the semilunar hiatus; and for this purpose he recommends the employment of the galvano-cautery. It then suffices to make the patient lie on the stomach, with the head low, in order to empty the antrum of Highmore, and to make use of antiseptic injections."

Then the author relates the case of the first patient he has cured by this method. He adds that he has observed twenty-five cases of this affection, and, with regard to etiology, remarks, that seven times the patient had coincidently numerous polypi, a fact which has not been tested by authors; the polypi and the catarrh closed the opening of the sinus, the secreted liquid was retained in the cavity, where it served for development of all kinds of bacteria, and particularly those which produced that mixture of trimethylamine, methylamine, and dimethylamine, which one meets with in old herring sauce, and the odour of which is identical with empyema. It is in these cases, in which the empyema has not an alveolar origin, and is due to a nasal affection, that Bayer's process should be employed. In other cases the author gives the preference to Cooper's method.

Joal.

LARYNX.

HUNT, J. M. (Liverpool).—**Clinical Paper Illustrating some Affections of the Respiratory Passages.** *The Liverpool Medico-Chirurgical Journal*, January, 1889.

THE author relates four cases. The first was one of a *foreign body in the trachea*, a piece of bone. At first there was severe dyspnoea, which was succeeded by spasmodic cough and inspiratory stridor. There was

marked subglottic œdema. This subsequently disappeared. A piece of bone could then be seen crossing the left half of the trachea. After tracheotomy, the piece of bone was removed easily. The author emphasises the point that in the ordinary seated posture, laryngoscopic examination failed to reveal more than the upper half of the trachea, but by making the patient stand while the author remained seated, and placing the mirror well forward on the soft palate the whole length of the trachea could be seen.

The second case was one of *soft fibroma of the right vocal cord*, with dysphonia of fifteen years standing. It was removed with Schroetter's tube forceps.

The third case was one of *naso-pharyngeal polypus* in a girl of twenty, a prominent symptom of which was recurrent and severe epistaxis. The growth completely filled the anterior half of the post-nasal space. It was removed with the cold snare, and was microscopically a simple polypus, with excess of fibrous tissue.

The fourth case was one of *rhinolith*. It weighed seven grains, and consisted mostly of a sequestrum of bone. A review of the literature of the subject shows that this is the only case recorded complicated with abscess of the antrum. Of seventy cases collected by the author, 85 per cent. of nasal calculi have a nucleus, 80 per cent. of these are foreign bodies introduced from without, 20 per cent. have as nuclei some secretion, blood clot, or bony sequestrum.

R. Norris Wolfenden.

OSLER (Philadelphia).—**Hereditary Angio-Neurotic Œdema.** *Amer. Jour. of Med. Sciences*, 1888.

THE affection in a family studied by the author has the following characteristics:—1. The occurrence of local swellings of the body, face, hands, arms, legs, genitals, buttocks, and throat. In one instance, possibly in two, death resulted from a sudden œdema glottidis.

2. Associated with the œdema, there is almost invariably gastro-intestinal disturbance, colic, nausea, vomiting, and sometimes diarrhœa.

3. A strongly-marked hereditary disposition, the disease having affected members of the family in five generations.

A special interest belongs to the œdema about the throat and larynx, since sudden involvement of these parts may be fatal. Quinke and Dinkelaker's case of a man aged twenty-two, showed repeated attacks of suffocation and cyanosis, the mucous membrane of the larynx being swollen, and requiring scarification. Goltz saw a case of œdema of the uvula and pharynx in a man of thirty, along with swellings of the sides of the anus and scrotum. Landon had in his own case swelling of the pharynx. Cuntz recorded a case of sudden onset of great suffocation and dyspnoea lasting a few hours. One case of Riell's had three attacks of angina with dysphagia and dyspnoea, and in one case the man had inflammation of the vocal cords.

The heredity of the condition seems well established by a number of cases. The intestinal colic is a striking feature, combined with the skin affection. The attacks may be repeated at intervals for many months. Urticaria, purpura, hæmorrhage from the bowels, hæmaturia and albumi-

nuria may occur. The disease is unquestionably neurotic in origin, having a close relationship with urticaria. A very careful and detailed history of the disorder through successive generations is given by the author of a case observed by him.

R. Norris Wolfenden.

LUC.—On Diffuse Hypertrophy of the Laryngeal Mucous Membrane, and on the Nature of the Inter-arytenoid Vegetations observed in Phthisical Subjects. *Archiv. de Laryngol.*, February, 1889.

THE author has just observed a patient, forty-five years of age, who had the vocal cords thickened, and of pale red colour. They presented in all their length either sessile mamillæ or verrucous elevations, essentially irregular, projecting into the glottic chink and opposing approximation of its borders. The same elevations were observed on the arytenoid and inter-arytenoid mucous membrane. Although the general condition was satisfactory, and auscultation revealed no lesion of the pulmonary apices. Luc diagnosed a laryngeal tuberculosis, and treated it with scarification and applications of lactic acid. The patient was cured, but microscopical examination of the vegetations showed only fibrous tissue, and the condition was therefore a hypertrophic chondritis. Fibrous vegetations, which are generally assumed to be tubercular, are also observed in phthisical patients, and their presence is not sufficient to conclude the tubercular nature of the laryngeal condition.

Joal.

MARTY (Paris).—Considerations upon Hypertrophy of the Superior Vocal Cords in the form of Polypi or Tumours. *Annales des Mal. du Larynx*, etc., November, 1888.

A CASE is recorded of hypertrophy of the ventricular band of the right side, resembling a polypus, pedunculated, club-shaped, very moveable, hiding the glottis, red and hard. Attempts to remove it by cutting forceps being ineffectual, it was destroyed with the galvano-cautery. The true vocal cords were injected, red, and ulcerated in places. The posterior commissure, arytenoids and aryepiglottic folds were tumefied and red. The lungs were tubercular, and the laryngeal condition was that of phthisis. Polypoid tumours in this condition are rare. Trousseau and Belloc recorded papillomata and polypi, pedunculated, and situated on the vocal cords. Fauvel has recorded a case analogous to the one mentioned here, and in which he failed to remove it with forceps or cold wire snare. His patient, however, was not tubercular. Gougenheim has lately observed a patient with red, spherical, cherry-like, pedunculated tumours of both ventricular bands. These polypi are composed of truly hypertrophied tissue of the mucosa and sub-mucosa, and owe their origin to a simple chronic laryngitis, bacillary or specific. The author recommends their removal by the galvano-cautery knife, in preference to other means, which are usually unsuccessful.

R. Norris Wolfenden.

DESSAR, L. A. (New York).—Dilatation of Stenosis of the Larynx. *Int. Journ. of Surgery*, April, 1888.

THE paper consists of a short historical account of operations of this nature, and a description of the well known Schroetter's bougies. The

only interesting feature of the paper is the author's observation drawn from Schroetter's clinic of his methods. "In cases of funnel shaped stricture where the lower opening is exceedingly small, Schroetter passes a thin catheter with either a small knob or a groove to fasten a cord. This catheter is forced through the stenosis, and as soon as the knob is seen in the tracheal fistula it is brought to light with the aid of forceps; a cord is then fastened tightly to this catheter and also to a second thicker one; the first is then withdrawn, and by some little force the thicker catheter is drawn through the fistulous opening and through the stenosis, and allowed to remain in the larynx for some time. But to my knowledge Schroetter employs this manipulation very seldom, and only in cases where the stricture cannot be reduced by means of a bistoury or a cautery." Schroetter leaves these tubes for twenty-four hours at a time in the larynx, introduced daily. After sufficient dilatation, the passage is kept free by employment of hollow hard rubber tubes, which are introduced into the larynx several times daily, remaining there for 5 to 30 minutes. The patients learn to pass these tubes themselves very well.

R. Norris Wolfenden.

SOLIS-COHEN (Philadelphia).—**Stricture of the Larynx, with extensive Cicatrisation from Ulcerative Tuberculosis.** *Amer. Jour. Med. Sciences*, December, 1888.

THE patient was a man of forty-five. During the winter of 1871-2 he had a very bad sore throat, more severe on the left side. An abscess opened on this side, just below the ear, and remained open six weeks. The sore throat improved. In 1883-4 he had acute bronchitis, from which he thoroughly recovered. In February, 1886, he had sore throat again, with dysphonia and dysphagia, which subsided under treatment. In 1887 sore throat with great dysphagia occurred. In May the voice was almost normal again, leaving, however, some huskiness. The patient had always been a little short of breath, and had a weak voice. In May, 1887, he began to breathe with difficulty, and in June to cough and choke on swallowing liquids. The patient had lost flesh rapidly. On examination of the throat, Dr. Cohen found a condition he had not met with before.

"At the root of the uvula, extending half an inch along each side the soft palate, was a pale, bilateral, symmetric cicatrix, broad at the raphé and gradually acuminate toward each extremity, of the same physical appearance as the cicatrices of syphilis. The epiglottis was gone; the cicatrized stump presented the same pale, glistening aspect as the cicatrix in the palate, and it was continuous into similar-looking tissue on either side, which represented thickened pharyngo-epiglottic folds. The top of the larynx looked as though overlaid by a thick, tense, uniform diaphragmatic membrane, which, without evidence of cicatrices at any point, left a small pear-shaped orifice in the centre; the butt in front and the apex in junction posteriorly. The largest horizontal diameter was about three millimètres at the butt, whence it tapered to a point at a distance posteriorly of about six millimètres. Through this membranous-looking structure the exterior outline of the aryteno-epiglottic folds could just be made out.

"The parts were pale. Their appearance was quite similar to the picture of lupus of the larynx figured in the last edition of Lennox Browne's volume (*The Throat and its Diseases*, London, 1887, p. 398, pl. xiv., Fig. 119). There was no history of syphilis, nor had I any reason to suspect infection.

"The picture was the picture of lupus; the cachexia, the cachexia of tuberculosis; the diathesis that of scrofulosis.

"There was evidence of disorganization going on in much of the left lung, and in the upper portion of the right one. The sputa, which were ejected with difficulty, accompanied by a sort of sneeze of the glottis, if I may so describe it, were decidedly tuberculous.

"The conclusion I arrived at was that this was a case of congenital syphilis which had become cured with slight defect in the soft palate, loss of the epiglottis, and adhesions between the upper surfaces of the ventricular bands which, with the aryteno-epiglottic folds had become stretched into a sort of diaphragm. The closest scrutiny with the oxy-hydrogen light and with magnifying mirrors did not disclose any trace of a cicatrix in this diaphragmatic tissue. Hence there was some suspicion that this formation might have been congenital and that contraction had taken place of late years in consequence of recent inflammations, or of irritation set up by the tuberculous process.

"The difficulty in swallowing liquids was readily overcome by adopting Wolfenden's suggestion of swallowing in the prone position from a tube in a tumbler. My patient, who was a machinist, explained the mechanism by a sort of siphonage, making one continuous conduit of the rubber tube, the back of the throat, and the œsophagus, without impingement of the liquids on the superior surface of the larynx, the efforts at swallowing keeping the liquids in line.

"As to relief for dyspnœa, the choice wavered between tracheotomy and section of the constricting tissues. It was determined to try the latter first, as tracheotomy could always be resorted to in an emergency. I began by dilating with the Schroetter's tubes. At first there was difficulty in introducing the smallest, No. 1; but at the end of about three weeks I was able to introduce No. 10, although the orifice closed up a little after its withdrawal. It did not contract, however, beyond the calibre of No. 5, and this passage gave me ample room, under oxy-hydrogen illumination, to see that the vocal bands were free to move in efforts at phonation. In the belief that the diaphragm was composed of the tissues normally represented by the aryteno-epiglottic folds and ventricular bands, I had a special pair of scissors made to cut the fold; but on trying them found, to my surprise, that the tissue was so thick that I could not get a purchase. I then resorted to the naked knives, presenting in the cardinal directions, which for more than twenty years I have been using to divide strictures of the larynx, and by sawing through fully an inch of solid tissue, almost cartilaginous to the touch, I succeeded, in the course of several days, in modelling a very fair representation of what I thought the normal aryteno-epiglottic folds ought to be. Several pieces were thus sawed out solidly. Some were examined microscopically in Philadelphia; others in Washington

" by Dr. W. M. Gray, of the United States Army Medical Museum. Dr. Gray wrote me that he cut the largest piece only, not thinking it worth while to examine the little pieces unless specially requested. The specimen contained many bacilli, some of them in large giant cells. Dr. G. de Schweinitz, of Philadelphia, found in the sections he examined a somewhat thickened epithelium, beneath which was a granulation-like tissue, with occasional giant cells, and numerous tubercle bacilli.

" After the posterior adhesions had been divided, and the resection of the lateral parts had been effected, the picture assumed the ordinary aspect of tuberculosis of the larynx.

" There was no disposition to retraction, and the operative wounds in a great measure cicatrised, although the wedges of tissue excised had contained numerous tubercle bacilli. This cicatrisation was spontaneous.

" The subsequent clinical history was the usual one of tuberculous laryngitis, and the patient died with pulmonary œdema in the latter part of February, 1888.

" Examination twenty-five hours after death showed both lungs tuberculous, the apex of the left one being riddled with small cavities, and the base of the right lung being healthy. The larynx showed very great thickening of the aryteno-epiglottic folds and ventricular bands, with detachment of the fibrinous portion of the vocal bands from the muscular portion, the intervening tissue having cicatrised. Both arytenoid cartilages were carious and exposed. The raw surfaces of the cuts made in resection were in great measure cicatrised.

" The specimen has been preserved for future reference in the United States Army Medical Museum, Washington." R. Norris Wolfenden.

PEAKE, W. P. (London).—**A Case of Tubercular Laryngitis: Tracheotomy performed with Cocaine—Remarks.** *Lancet*, September 15, 1888.

TRACHEOTOMY was performed on account of the dyspœnea. The hypodermic injection of a 5 per cent. solution of cocaine over the region of the incision, and the sponging of each cut with a 10 per cent. solution, were found to be efficacious in abolishing pain, except when the trachea was cut through.

The patient died of the disease ten days afterwards. Hunter Mackenzie.

WRIGHT, EDWARD ARTHUR (Huddersfield).—**Case of Obstruction to Respiration—Tracheotomy—Recovery.** *Lancet*, September 29, 1888.

THE cause of respiratory obstruction, in a boy aged twelve years, was apparently a peribronchial glandular abscess pointing into the trachea, and which was ruptured by means of a catheter passed through the tracheotomy wound.

Hunter Mackenzie.

BERGER.—**Pin implanted in the Vestibule of the Larynx.—Extraction per vias naturalis.** *France Médicale*, September 8, 1888.

AFTER cocainising the foreign body was removed by laryngoscopic means. It had been implanted in one of the ary-epiglottic folds, and passed out

between the two median and lateral glosso-epiglottic folds. It was removed with forceps, after having made the epiglottis swing over on the tongue.
Joal.

STRÖM.—**Corpus Alienum Laryngis.** *Medical Society of Christiania, September 12, 1888.*

THE patient, a child aged three, who previously had suffered from convulsions, and whose mother was very nervous, had suddenly, while eating cherries and walnuts, got a fit of suffocation, which, however, soon disappeared, and the child could speak with a clear voice. As the fits of suffocation returned frequently, combined with convulsions, the patient, nineteen days later, was brought to Dr. S., who, witnessing a fit of suffocation, received the impression that this was caused by a foreign body, and performed tracheotomy. The crico-thyroid ligament was found to be pushed forward by a foreign body, which, on opening the trachea, was found to move violently up and down. After the removal of the foreign body, which was found to be a cherry stone, the child breathed quietly, but four hours later the convulsions reappeared, first in the right side, and later in on the left; and the child died three days after the operation.
Holger Mygind.

PATÉ.—**Foreign Body in the Trachea.** *Union Méd. et Scientifique du Nord-est, 1888, No. 5.*

A MAN entered the hospital at Rheims, under Dr. Luton, complaining of great trouble in breathing. Auscultation revealed only whistling sounds and a diminution of the vesicular murmur. He was treated for emphysema. On the third day he died. At the autopsy a flint, weighing 9·5 grammes, was found arrested at the bifurcation of the trachea. It was afterwards learnt that the man was in the habit of keeping a pebble in his mouth, in order to break himself of chewing a quid.
Joal.

PARELIUS, H. C.—**A Fishbone in the Throat.** *Norsk Magazin for Lægevidenskaben, No. 1, January, 1888.*

A CHILD, aged one-and-a-half years, exhibited symptoms of a foreign body in the larynx, became afterwards well, except for hoarseness and slight cough. Twenty-four days later the patient, while coughing, brought up a large fishbone, two centimètres long, with a long spur at one end (probably an os hyomandibulare). Complete recovery resulted.
Holger Mygind.

STEWART, W. R. H. (London).—**Two Cases of Unilateral Abductor Paralysis of the Larynx, due to Nasal Reflex Irritation.** *Lancet, October 13, 1888.*

BOTH cases were cured by "removal of the right middle turbinate bone "with a snare." This bone was thickened, and pressing on the septum.

(The author states that, in such cases, "other causes being negatived, "the nose should always be examined, and symptoms treated."—We consider the treatment of mere symptoms a most unsatisfactory method

of therapeusis, and, moreover, is it meant to be inferred that the thickening of the middle turbinate bone in the cases now abstracted was a *symptom* of the complaint? We further think that removal of the *middle* turbinate bone is a somewhat risky procedure, on account of its not being, like the inferior turbinate, a separate bone, and the less it is interfered with, the better. We have not yet witnessed a case where its removal was justified.—H.M.)
Hunter Mackenzie.

LLOYD, FRANCIS (Northampton).—Disorders of Speech in the Insane. *Lancet*, July 7, 1888.

THIS paper is mainly of psychological interest. Hunter Mackenzie.

SAVILL, T. D. (London).—A Case of Hysterical Aphonia in a Woman aged seventy-one—Recovery—Remarks. *Lancet*, August 18, 1888.

THE age of the patient is stated to be the most interesting point in the case, and "the unbounded gratitude expressed by this patient at her cure (by the Faradaic current) is a point worthy of note."—(We trust that this is not noteworthy on account of its rarity.—H.M.) Hunter Mackenzie.

PANNÉ.—Tracheotomy in Croup, under Chloroform, and by the Slow Method. *Thèse*, Paris, 1888.

THIS is an essay based upon fifty cases observed by the author at the Hôpital Trousseau. Chloroform anæsthesia is innocuous. It should be given in small quantities, and when the patient has arrived at the stage of muscular relaxation—which takes about 2-4 minutes—anæsthesia should be arrested. As the operation only lasts about three minutes the child does not recover consciousness until it is over. The operation comprises five factors: (1) Incision of the skin and subcutaneous cellular tissue, commencing a little above the cricoid and terminating $2\frac{1}{2}$ centimètres below. (2) Incision of the muscular layer. (3) Incision of the thyroid isthmus. (4) Incision of the trachea. (5) Insertion of the tube. Hæmostasis is completely obtained by means of special retractors, which are adapted perfectly to the two lips of the wound, and compress the peritracheal tissues.
Joal.

VERNEUIL.—Tracheotomy under Chloroform. Cure. *Journal de Méd. de Paris*, December 2, 1888.

IN a case of croup in a child five years old, Verneuil performed tracheotomy under chloroform. He remarks that he must praise chloroform for producing an anæsthesia which transforms into a tranquil operation an intervention always agitated, often chance, and the indispensable rapidity of which often leads to serious operative accidents.
Joal.

HAYWARD, CHARLES W. (Liverpool).—Cyst of Ventricular Band. *Lancet*, September 15, 1888.

THE cyst occupied the middle three-fifths of the band. It was treated by incision, and tearing away of the cyst wall, followed by the applications of nitrate of silver and chloride of zinc.
Hunter Mackenzie.

EEMAN (Ghent).—**Hyaline Myxoma of the Right Vocal Cord.** *Rev. Mens. de Laryngol.*, February, 1889.

THE author published a similar case in 1886, and now records the case of a man of twenty-eight, who presented a tumour occupying the superior face of the right true vocal cord at the level of its anterior third. The tumour was of the size of a large pea, semi-transparent, of pearly-grey colour, smooth surface, divided into three portions by two horizontal grooves, and it had small and very delicate arborisations on the surface. It was of soft consistence. Eeman diagnosed a cyst; microscopic examination proved it to be a myxoma. He concludes that the physical characters of myxoma and certain cysts are identical, and diagnosis can only be established with certainty by the microscope.

Joal.

SUNDARENA-LABAT.—**Inter-crico-thyroidean Laryngotomy in a Case of Encephaloid Cancer of the Larynx.** *Rev. Mens. de Laryngologie*, February, 1889.

THE case of a patient operated upon successfully. The author concludes that (1) Inter-crico-thyroidean laryngotomy permits of a smaller wound being made, and for that reason is superior to tracheotomy in the adult; (2) The employment of Paquelin's thermo-cautery, heated to a dull red, and successive punctures made produces no scars; (3) The cannula *à bec* in section of the crico-thyroid membrane permits the operation to be finished; (4) The crico-thyroid space is sufficient in the adult to permit the insertion of a cannula of nine millimètres; (5) Apart from slight dysphagia and some laryngitis, which quickly yields to treatment, the immediate complication of the operations are nil.

Joal.

GOUGUENHEIM and GASTON.—**Cancer of the Larynx—Tracheotomy—Propagation to the Thyroid Gland. Enormous Tumour of the Neck around the Wound. Application of a very long Cannula with inferior half movable.—Death.—Autopsy.** *Annales des Mal. du Larynx, etc.*, December, 1888.

THE case of a man suffering from laryngeal stenosis, due to a tumour difficult of diagnosis, since syphilis, tubercle, and cancer could be successively thought of. The aneurysmal appearance of the large vessels of the neck at their origin from the aorta caused the belief that the recurrent laryngeal nerves were compressed. After tracheotomy was performed, the tumour advanced forwards, invading the thyroid gland, and underwent a great development in the neck, so that a special cannula with movable inferior extremity had to be applied. At the autopsy the condition was proved to be cancer.

Joal.

CATON, PARKER, HUNT, GLYNN, HARRISON.—**Malignant Disease of the Larynx.** *Transactions of the Liverpool Medical Institution, Liverpool Medico-Chirurgical Jour.*, January, 1889.

DR. CATON, in opening a discussion upon this subject, related three cases of cancer of the larynx which had been under his care at the infirmary. The first occurred in a man of fifty-seven, whose earliest symptoms were cough and dysphagia. The tumour extended so as to hide the aperture

of the larynx. Patient had no pain, and the dyspnoea did not call for tracheotomy. At the autopsy an epitheliomatous mass was found to invade the upper third of the œsophagus, and posterior part and left side of the larynx, with secondary nodular masses in the lungs.

In the second case a diagnosis was at first made of syphilitic laryngitis. Later on sloughing, and nodular ulcerating masses were found in the larynx. At the autopsy epithelioma was proved.

In the third case enlargement and soreness of the larynx, swelling of the aryteno-epiglottidean folds, suggested at first merely perichondritis. Asphyxia rendered tracheotomy necessary. Abscesses formed external to the cartilages, the glands enlarged, shooting pains and sanious discharge followed. The growth subsequently spread to the œsophagus.

Mr. RUSHTON PARKER considered that most of the cases of this disease were unfit for surgical interference, except perhaps the insertion of a tube into the larynx. A case now and then occurred in which extirpation seemed and proved to be practicable. The case he had recorded last year was undertaken under what appeared to be favourable conditions, though the intra-laryngeal disease was well advanced. There was implication of the pharynx, and the disease recurred there and in the glands of the neck, and was extirpated from these situations without return. But the disease persisted in and about the trachea after eventual total removal of the larynx, killing the patient in five months. A similar case to this he should regard in future as totally unfit for operation. If the operation is to be done besides the essential preliminary tracheotomy the larynx should merely be opened at first so that further operation or its abandonment can be at once finally decided upon. All such operations must be very difficult and tedious, and he felt that extremely little could be argued in favour of them for hospital patients on purely surgical grounds, but the urgent wish of a private patient should not be entirely disregarded. He looked back with hardly any satisfaction to the case he had operated on last year, and thought it an operation from which he could scarcely expect much future development.

Dr. J. M. HUNT made remarks upon the differential diagnosis of cancer of the larynx, and thought that operation should be limited to cases of intrinsic cancer in which glands were not involved.

Dr. GLYNN directed attention to the fact not referred to by previous operators that death in many cases of laryngeal cancer occurs from gangrene of the lungs. This is caused by entry of food into the lungs. He referred to Mr. Rushton Parker's case of total excision, stating that the patient lived six months after the operation, dying of recurrence in the lower part of the trachea.

Mr. DAMER HARRISON related a case in which he had removed about three-fifths of the larynx. The disease was located on the right side. There was complete immobility of that vocal cord, and what appeared to be a small growth projecting into the larynx below it. On opening the larynx in the median line the growth was seen to extend across the mid-line both in front and behind. The excision included a portion of the left side of the larynx. At first the patient progressed favourably, but on the seventeenth day sank from septicæmia.

R. Norris Wolfenden.

BARATOUX.—Palliative Treatment of Epithelioma of the Larynx and Pharynx by Tincture of Thuja Occidentalis. *Pratique Médicale*, June, 1888.

THE author prescribes alcoholic tincture of thuja in doses of twenty drops at first, subsequently going up to three or four grammes. It is also necessary to swab the tumour every two or three days with a glycerine mixture of the tincture. This treatment has given him good results, and has checked the course of the disease. Joal.

HJORTH (Christiania).—Sarcoma Laryngis—Laryngofissio—Recovery. *Norsk Magazin for Lægevidenskaben*, No. 12, December, 1888.

THE patient, a man aged sixty-two, exhibited on laryngoscopical examination a large tumour, situated on the left arytenoid cartilage, filling up the whole width of the laryngeal cavity, while it anteriorly left an open space. The symptoms, which had lasted for three months, were only feeling of something sticking in the throat, indistinct pronunciation, and, lately, dysphagia.

The growth was removed by thyrotomy, during which operation the lower part of the larynx beyond the tracheal tube, temporarily introduced, was plugged with small sponges. The ossified thyroid cartilage was cut by means of scissors, and afterwards the two sides were brought into contact by means of a silver wire applied at the upper part (the application of a similar one below failed, on account of the cartilage breaking into pieces). Twenty days after the operation the patient was discharged. The laryngeal examination showed only very slight alterations: the vocal cords were in good contact, and the voice sonorous, but deep.

The tumour was found to be 2 centimètres long and broad, and 1 centimètre thick, and the microscopical examination showed it to be a spindle-celled sarcoma. The patient exhibited on the hands several small tumours, of which one examined microscopically consisted of spindle cells. Holger Mygind.

NECK, THYROID, &c.

McBURNAY (New York).—Tubercular Enlargements of Lymphatic Glands. *Internat. Journal of Surgery*, January, 1889.

THE patient was a female, aged twenty-five. She had two small enlargements beneath the jaw on either side; one has existed for six and the other for four years. Dr. McBurney regarded them as tubercular. All these cases do well after operation, and there is every advantage in their removal. If they are of tubercular nature, the quicker they are removed the better. It is possible for them to dry up or to spontaneously rupture, a hard cicatrix forming. It is best to operate, however, and not wait for these conditions to occur. We should operate before suppuration of the

glands has gone far, so that a clean wound will be left behind. As a rule these glands can be readily shelled out if the morbid process is not far advanced. In the present case it took some time to remove the glands on the left side, owing to the long duration of the disease, the capsule being adherent to the surrounding tissues in consequence of a peri-adenitis. The wound was irrigated thoroughly, drainage tubes inserted and antiseptic dressings applied.

R. Norris Wolfenden.

TREVES, W. K. (Margate).—**On the Treatment by Excision of Masses of Scrofulous Glands.** *Lancet*, July 21, 1888.

IN very large glands, or masses of glands, the author believes that excision is the proper method of treatment. Scooping out is altogether ineffective, and drugs are quite inert.

Full details of the method of operating are given, and a series of illustrative cases is recorded.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—**Angina Ludovici.** *Lancet*, August 4, 1888.

IN concluding their article on the Mandeville case (*vide infra*) the editors make the following remarks:—"Acute diffuse cellulitis of the neck has always a serious prognosis. . . . It is a malady upon which professional opinion differs as to its exact cause, incidence, and mode of development. . . . The balance of opinion seems to be in favour of the theory which supposes it to arise from implantation of a virus upon the pharyngeal or tonsillar mucous membrane, and that, the local contagion once established, there ensues a widely and rapidly diffused lymphaginitis, with general infection of the system. . . . The generally recognised mode of treatment is identical with that for other acute infective inflammation—viz., to maintain the strength, to get rid of the poison and its products, and to ward off any special tendency to death. The second of these desiderata is best attained by relieving tension, and giving free vent to the local exudation by means of free external incisions. Incisions to be made effectual cannot be made from within the mouth on account of the danger of immediate and consecutive hæmorrhage. Except in the very early stages, but little good can be expected from leeching; the mischief is too deep and serious for that."

Hunter Mackenzie.

EDITORS OF "LANCET."—**The Mandeville Case.** *Lancet*, August 4, 1888.

THE interest in this case to the readers of this Journal consists in the fact that the subject—one of the Irish prisoners—died shortly after his discharge from prison from diffuse cellulitis about the pharynx and neck (angina Ludovici). An enquiry was held, and the editors, in a leading article (*vide supra*), express their dissent from the verdict of the jury—that the death of Mr. Mandeville was primarily due to the deprivation and suffering which he is alleged to have borne during his term of imprisonment.

Hunter Mackenzie.

PICQUÉ.—Enormous Cystic Goitre, with rapid Development, and Thyroidectomy.—Cure. *Archives de Laryngologie*, February, 1889.

IN every case of benign growth, interglandular enucleation should be preferred to total ablation when possible. The latter should only be undertaken in cases of malignant tumours; in such cases, however, it is better to abstain from operation.

Picqué practised interglandular enucleation in a case of a patient thirty-five years old, who had a voluminous goitre, which had rapidly developed two years.

Joal.

EDITORS OF "LANCET" (London).—Galvano-Puncture in Goitre. *Lancet*, August 18, 1888.

AN annotation dealing with a report by Dr. Weinbaun, in a recent number of the *Vratch*, on this subject. The current was passed from a battery of twenty cells through the tumours by means of two gold needles, inserted into opposite sides of the growths. In one case one hundred and fifty sittings were required. Recovery followed. (The number of sittings necessary appears to be an objection to this method of treatment.—H. M.)

Hunter Mackenzie.

LEFLAIVE.—Recent Theories as to the Nature and Pathogeny of Exophthalmic Goitre. *Gazette des Hôp.*, January 12, 1889.

A GENERAL review of the nature and pathogeny of this disorder. After having discussed most of the theories emitted with regard to it the author concludes :—"Basing our conclusions on the symptomatology, so extensive "and so various in Graves' disease, as its etiology and its parentage, which "approaches so near to epilepsy and especially to hysteria, we can share "the opinions of those who make of this malady a nervous affection "implicating the whole cerebro-spinal nervous system. Its effects, however, "seem to predominate at the bulbo-protruberantial region. The only "conception which is satisfactory is that of a neurosis, not only a cardiac "neurosis, but a general neurosis."

Joal.

CHARCOT.—New Signs of Graves' Disease. *Bulletin Médical*, February 3, 1889.

BUT a little time ago it was thought that the disease was manifested by the classical triad of symptoms—goitre, exophthalmos, and tachycardia; now we may diagnose the condition in the absence of goitre or exophthalmos. A new symptom remarked in a patient with Graves' disease, is elevation of temperature, which has been studied by Bertoye (*see also* Wolfenden, this Journal, Vol. II., p. 355). The urine does not, however, present febrile characters. Besides hyperthermia there is a sign which has not yet been signalised, namely, trembling. With the myograph 8.9 oscillations per second can be counted, whilst in paralysis agitans there are five or more, and seven in hydrargyrim. (This is a point which has been thoroughly worked out by Norris Wolfenden and Dawson Williams—*vide* "Note on the Rhythm of Certain Tremors," *Brit. Med. Journal*, 1888). Thermophobia is also a sign of value; the patients are always

too hot in bed, continually undress themselves, and that without fever. Charcot draws attention to the feebleness of limbs, and the paraplegia which is met with as a symptom of Graves' disease.

Joal.

BERTOYE.—On Fever in Exophthalmic Goitre. *Thèse, Paris*, 1888.

THE fever seen in Graves' disease has certain peculiar characters. It arises suddenly, and an insignificant influence is sufficient to make it break out, such as emotion or chagrin. The reflex, in place of starting from the brain, may originate in the genital organs. This fever is very unstable—it is not a continuous fever. Neither the sensation of heat nor the pulse are in relation with the degree of the temperature. It can show itself with variable intensity, and, besides slight forms, there are forms which are grave, and simulate typhoid fever. The appearance of this fever in the course of exophthalmic goitre is in general of bad augury. These febrile states are accompanied with a rapid wasting, which, if it persists, ends in a certain time in cachexia and death.

Joal.

DAMION.—Electrotherapy in Graves' Disease. *Soc. de Méd. Pratique*, November 8, 1888.

THE author has employed electrotherapy in two patients with great success. It is at first necessary to apply galvanisation for two or three months, to be succeeded with faradisation for two or three weeks, then to return to galvanisation.

Joal.

VERDIER.—Treatment of Exophthalmic Goitre. *Soc. de Méd. Pratique*, November 15, 1888.

THE case of a patient with symptoms of Graves' disease, and also pulmonary tuberculosis (cough, expectoration, and great enfeeblement). All the symptoms were considerably ameliorated under bromide treatment.

Joal.

EDITORS OF "LANCET" (London).—High Altitudes in Graves' Disease. *Lancet*, August 4, 1888.

AN annotation relating to the experience of Professor Stiller, of Budapesth, who, contrary to the usual opinion, has found residence at high altitudes (1500 feet to 5000 feet) beneficial in this complaint.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—Pathology of the Ganglion of the Trunk of the Pneumogastric. *Lancet*, July 14, 1888.

AN annotation having reference to the thesis on the subject by Dr. Alexander Leonis, of St. Petersburg.

The author is stated to have found that in certain diseases—*e.g.*, typhoid, "the ganglion is frequently affected by an inflammatory process, which leads to the atrophy or breaking down of the nerve cells, and to "hyperplasia of the connective tissue of the nerve." As a consequence, we have, amongst others, typhoid laryngitis and paralysis of the pharynx, spasmodic dysphagia, and vomiting. This condition of the ganglion may perhaps be connected with the paralysis of the pharynx and vomiting observed in some cases of heart disease.

Hunter Mackenzie.

SWANN, ALFRED (Batley, Yorkshire).—A Foreign Body in the Ear for Eighteen Years. *Lancet*, July 7, 1888.

THIS case is considered interesting, "as showing the toleration with which " the auditory canal may have for foreign bodies, and also on account of " the sympathetic irritation of the throat."

Hunter Mackenzie.

REVIEWS.

TRANSACTIONS OF THE ROYAL ACADEMY OF MEDICINE IN IRELAND. Vol. 17. 1888.

THIS volume is full of interest, and contains papers in every branch of medicine and surgery of great value. A certain number of them may be here mentioned as bearing directly or indirectly on this specialty.

Dr. W. M. A. WRIGHT contributes notes of a *Case of Lymphadenoma*, presenting the uncommon feature of occurring in a child aged twelve years and four months. The cervical glands formed a chain complete from ear to ear, passing under the chin; they were hard, and inseparably fused together. The axillary and inguinal glands were enlarged to a lesser degree. There was slight increase of splenic dulness; no hepatic increase. She was very anæmic, very drowsy, and had been diarrhætic for four weeks. Pulse was 110, and temperature 103 F. She spoke in a low whisper, with great disinclination to use the voice. This symptom, along with drowsiness, is regarded by Eustace Smith as very characteristic of the cachectic stage of this disease; so is the peculiar dry, rough skin, with powdery desquamation. A most interesting symptom was localized bronzing of the skin, which appeared about three months after the illness began, increasing in intensity for six weeks, and then remaining stationary until the end. It was confined to the neck and trunk, and never appeared on the face, or any part of the mucous membrane of the mouth, or on the hands and feet. Dr. Wright considered it due to extension of the disease to the suprarenal capsules. The illness only lasted seven months, the patient at last falling into a drowsy, semi-comatose condition, and exhibiting Cheyne-Stokes' rhythm for some hours before death. Leukæmia was excluded on account of the enlargement of cervical glands being the first symptom, the very slight increase in size of the spleen, absence of hepatic enlargement, or fulness or tenderness of the abdomen; the absence throughout of any ecchymoses or bleeding from any part of the body. The blood was not examined, and no autopsy was allowed.

Immediately following this is a paper by Dr. A. WYNNE FOOT on *Argyria*, in which the notes of Dr. Baron and Dr. Wilks, of discolouration of the skin by using nitrate of silver to the throat, were referred to (*vide* this Journal, 1888, Vol. 11., pp. 28, 77).

Dr. Foot presented drawings of a similar case to the section of medicine, in which the skin of the entire body was discoloured, the nails

and mucous membranes of the mouth and eyes also. This case arose from the use of lunar caustic to the throat, the man having applied the silver stick diligently to the throat during eight years, when he desisted owing to noticing discolouration. Much of it was no doubt swallowed. Neumann reported a case in which a physician became discoloured after having taken about 20 grains for gastric ulcer. It must be considered an incurable affection, though Vandell reports two cases in which iodide of potassium and mercurial vapour baths were successfully employed. One of these cases was completely cured. The author gives a limited support to the administration of the double hypo-sulphite of sodium and silver, which Curci asserts to be soluble, non-irritant, not coagulating albumens, and readily absorbable by the mucous membranes.

Mr. PAUL DILLON contributes *Notes of a case of Foreign Body in the Air Passages, with remarks on same.* The case occurred in a woman of forty, who only gave a history of having caught cold, got a cough, with expectoration of blood a few times, but had no idea of having swallowed a foreign body. There was much wasting, intense general bronchitis, and very strange respiratory sounds, such as the author had never before heard or seen described: "they were sometimes snoring, sometimes gurgling, irregular in time, sucking, giving the idea occasionally of air having suddenly found entrance through a constricted passage into a large cavity." There was, however, no evidence of pulmonary cavity. Subsequently, the patient, although improved of her bronchitis, for which she was treated, began to develop a goitre which probably increased. Determining to treat the goitre, Mr. Dillon, while making an examination of it, happened to press rather hardly upon it with the forefinger and thumb, which brought on a most alarming fit of coughing and suffocation. This passed off, and the patient walked home; but at night another attack occurred, which ended in the expulsion of a large piece of bone, 24 mm. long, 11 mm. broad, and 3 mm. thick, which had been in the air passages for six months, probably, the author thought, lodged in the commencement of the bronchial tubes. A curious feature of the case was that the goitre almost completely subsided after expulsion of the bone. The author made a number of dissections of thyroid glands with the object of determining their nerve supply. He found that the external laryngeal nerve supplies the gland in five cases out of seven, and in two cases the external and inferior laryngeal nerves communicated with each other, and supplied the gland. He further thinks that the goitre was produced by the irritation of the bone lodged in the lower portion of the larynx. A case resembling this in many details was published in the *Lancet* of 1876 by Pollock. A rabbit's vertebra remained in the air passages for eighteen months, gave rise to all the symptoms of phthisis, and was finally expelled without surgical interference.

No mention is made in this paper of laryngoscopical examination, and one may fairly ask why it was not performed, for surely it would have thrown some light upon the case.

Dr. J. F. KNOTT contributes a paper on *Purpura Hemorrhagica*, recording the case of a man of seventy, who, previously in good health, had a sudden attack of epistaxis of alarming nature. A year before he

had lost his son, twenty-one years of age, from the same cause. Dermic extravasations were found on the temples and skin of the legs especially. Ordinary hæmostatics failing, the posterior nares were plugged. A slight abrasion of the mucous membrane caused copious bleeding. A few days after the patient died, oozing of blood having continued to the end. The case is interesting on account of the proved heredity, resembling hæmophilia, from which, however, this case was perfectly distinct. There was no elevation of temperature or swelling of joints.

Mr. WILLIAM THOMSON contributes a paper on *Two Fatal Cases of Foreign Bodies in the Œsophagus*.

The first case was that of a labourer who was asphyxiated with a large piece of meat wedged into the pharynx and the upper part of the œsophagus. The epiglottis was tightly closed. The piece of meat weighed a quarter of a pound. The second case was that of a man who felt a piece of meat stick fast while trying to swallow. There was pain, and this was increased by subsequent attempts to force the mass down the œsophagus. Emphysema of the neck and face followed. The introduction of a tube into the mouth caused, when it reached the epiglottic region, an alarming attack of laryngeal spasm. Tracheotomy became necessary, and next day the patient thought he felt the mass slip into the stomach on swallowing some water. He, however, died forty hours after the tracheotomy. At the autopsy a quantity of beef-tea and tea was found in the posterior mediastinum. In the œsophagus a mass of meat and fat was found extending for two inches, and tightly fixed in the upper part of the tube. A small bone projected through the œsophagus and lay outside the left wall of the trachea, and its other end projected through the posterior wall by a slit or tear. All cases in which both walls of the œsophagus have been transfixed have apparently ended fatally. From the shape of the bone any attempts at its manipulation would have resulted in perforation. Emphysema, as a primary condition, is very rare. Had the patient lived œsophagotomy would have been performed, though from the nature of the lesion as determined after this would have been necessarily fatal.

Mr. FOY discusses the *Surgery of the Thyroid Gland*, in which he deprecated the habit of exhausting a long list of supposed remedies before operation is advised, thus permitting the favourable moment to slip by. Myxœdema and central troubles are not reported as following the removal of a tumour. The author relates a case of cystic growth in which he attempted excision. Bleeding vessels were secured with catch forceps, and a slight incision into the capsule exposed the tumour, which was lifted from its bed. It had scarcely been removed when a copious flow of blood occurred. Such bleeding vessels as could be seen were secured by forceps, but without checking the flow. The wound was plugged with sponges, and pressure applied by pins and cord in figure of eight coils. Subsequently these were removed, when thirty-eight vessels were counted, chiefly branches of the superior thyroid entering the posterior surface, and which were prevented from retracting by the fibrous capsule. The patient subsequently made a good recovery. Speaking of tapping the author considers that it would probably have produced uncontrollable hæmorrhage, and he is all in favour of excision in such cases.

Mr. EDGAR FLINN, in a paper on "*Glengariff as a Winter Health Resort*," speaks highly of this locality for patients suffering from bronchial affections, consumption, and asthma, and also for rheumatic and gouty persons requiring a high temperature, and minimum of variability of temperature.

Besides the papers here mentioned, a great number of contributions upon medical and surgical subjects of interest and importance will be found in the volume, which bears evidence of the highly important and scientific value of the work transacted at the Royal Irish Academy of Medicine in Ireland.

R. Norris Wolfenden.

GOUGUENHEIM et TISSIER.—*Phthisie Laryngée. Paris, Masson, 1889. Laryngeal Phthisis*—(with thirteen figures in the text, and five plates, of which three are chromo-lithographs.)

THIS is an important work, meriting detailed examination.

The authors deal first with a historical survey of the knowledge regarding laryngeal phthisis up to the time of Louis, since that time up to the period of the introduction of the laryngoscope, and from that event to the present. There follows a chapter upon pathological anatomy, and a description of the right way of removing the parts for examination so as to preserve the recurrent nerves and the glands.

The authors believe that more than a third of all patients succumbing to pulmonary phthisis present a laryngeal lesion variable in extent, intensity, and localisation.

The authors study these infiltrations which have nothing in common with true œdemas, as they occur on the epiglottis, the ary-epiglottic folds, the ventricular bands and ventricles, the arytenoid region, the true vocal cords, and the subglottic region and trachea. Ulcerations are very frequent. The authors state that it is not rare to meet with superficial ulcerations in acute laryngitis of whatever origin. Ulcerations of the inter-arytenoid fold are often very early in appearance, even when the rest of the larynx is apparently healthy and are typical of tuberculosis. Follicular ulcerations are most frequent in the trachea, when they generally occur at the level of the cricoid and epiglottis. A history of the recognition of tubercular tumours follows. These generally arise from the base of the epiglottis, the inter-arytenoid space, and subglottic region. They are cauliflower-like, pale red, very soft, and easily detached. In the subglottic region they occur commonly under the anterior commissure.

All cartilages of the larynx may be involved in the tubercular process. The arytenoids are those most commonly affected, then the cricoid, the epiglottis and thyroid cartilages, and most of these lesions (and perichondritis) are of bacillary origin. The authors think that on the base of an ulceration originally tubercular a secondary infection by the numerous schizomycetes of pulmonary expectoration may become developed, and the perichondritic suppurations seen in laryngeal tuberculosis may thus be of non-tubercular origin. Ankylosis of the crico-arytenoid joint is very rarely of tubercular origin, if by ankylosis is meant the adherence of the two articular surfaces. The authors insist upon a peculiar pallor of the

posterior crico-arytenoid muscles, which they have frequently observed in patients dead of advanced phthisis. The peri-tracheo-laryngeal glands are in most cases enlarged and tumefied, and the recurrent nerves are frequently altered. A study of the pathology of acute miliary tuberculosis of the larynx follows. A good deal of space is given to the histology of tuberculosis. A special characteristic of this process in the larynx is the diffusion of the lesions, the relative rarity of tubercles, and the predominance of infiltration with a tendency to sclerosis, so that in some cases only sclerous tissue infiltrated with small round cells is met with, making it difficult, in the absence of tubercles and bacilli, to determine the specific nature of the condition. Interstitial myositis of the posterior crico-arytenoidei is the most pronounced lesion of these muscles. The authors are of opinion that erosions are ordinarily specific, in phthisical patients, the result of epithelial effraction by bacilli, but may be also caused by schizomycetes. The authors classify the ulcerations of laryngeal phthisis as:—(1) *epithelial* (*a*), erosions (*b*), ulcerations; (2) *papillary*, fissured; (3) *glandular*, deep, with small surface; (3) *vascular*, large, extensive and shallow, with thick edges; (4) *caseous softening*, more or less extensive, deep, with irregular borders.

Speaking of the value of bacillary examinations of sputum, the authors rightly insist upon many examinations, when the results are of a negative character, previously to arriving at a definite opinion. Bacilli existant singly or in groups, and situated deeply, have many times enabled the authors to determine the tubercular invasion of the tissues when histology alone has rendered this doubtful. It is not exceptional to find bacilli between the epithelial cells in their interstices, especially in the region of pavement epithelium, principally in the catarrhal forms of tubercular laryngitis.

Speaking of the laryngitis of tubercular patients, which is regarded by some authors as non-specific and inflammatory, the author scarcely believed in a laryngitis of the tubercular, as opposed to tubercular laryngitis. Authors who, like Heinze, admit only vascular infection, are led to describe lesions and ulcerations, which they call non-specific. But modern observations, of the discovery of the bacillus between epithelial cells and the manner of development of tuberculosis of glands, compel us to return to the theory of Louis. Though, clinically, these erosions and ulcerations present nothing specific, we must admit their tubercular nature with some reservations. A tubercular subject may have a catarrhal process with erosions which are not specific, and only become so secondarily, but the event is rare, and the differentiation is more theoretical than practical, since the termination is the same.

The authors insist in cases where pulmonary signs are indistinct, upon the value of small vegetations with or without erosions, in the arytenoid regions, as signs of tuberculosis lesions of the peribronchial glands may occur very early, giving rise to alarming stenosis of recurrent origin. If the slight signs of involvement of one apex exist these signs assure the diagnosis of phthisis. Speaking of the possibility of a primary laryngeal phthisis, while Progrebinski, Souvenbourg, Orth, and Fraenkel, have undoubtedly proved its occurrence, agreeing thus with the older views of

Trousseau, Belloc, Waldenburg, and Mandl, the authors strongly insist on the fact that primary laryngeal phthisis is sooner or later accompanied with pulmonary tuberculosis. The polypoid vegetations, which so often occur in scrofulous subjects, whose lungs are yet intact, is at first primary and of slow march before the lungs become involved. Cases under the authors' care prove, however, that these vegetations may be cured, and the onset of pulmonary symptoms may be delayed for at least three or five years. Louis's old view was that laryngeal infection arose from sputa secreted from pulmonary cavities stagnating in the larynx. This view does not serve, however, for all cases, for, as is well-known, deep infiltrations occur in the larynges of patients with very slight expectoration, and others who have large cavities and expectorate much have the larynx unaffected. Heinze's views of infection by means of vessels, arterial or lymphatic, and the fact that tubercles are deposited under an unaltered epithelial membrane, are in opposition to this older theory. Gouguenheim and Tissier admit the possibility of direct inoculation upon the laryngeal mucous membrane, especially if there be a slight erosion. They illustrate this by a case in which a young woman was supposed to have contracted laryngeal phthisis by contagion from her husband. In the case of primary polypoid phthisis, it is sought to explain the laryngeal condition by hereditary infection, manifested by infantile scrofula, and the authors compare these vegetations to white swellings and cold abscesses. In some cases the authors believe laryngeal infection to be carried by vessels. At first peri-vascular tubercles are formed, then diffuse infiltration by fusion of a number of follicles, or invasion of neighbouring tissues by the bacilli. Necrosis of these follicles occur, ending in ulceration. They also admit the probability of infection through the epithelium in some cases. While many writers regard the superficial erosions and ulcerations as non-tubercular, it is interesting to note that the authors have found bacilli on the surface of these lesions, affirming their tubercular nature, and they explain the slow development and ready cure of these conditions by the resistance of the limiting membrane underneath preventing extension of the process. The discoveries of Villemin and Koch lend support to the old view of Louis. They maintain the view of propagation of the tubercular process in many cases from infection through the epithelium, of which, in most cases, vascular infection is the sequel.

The authors deal minutely with the symptomatology of the disorder. In speaking of perichondritis, they emit the opinion that a certain number of the cases described under the name of hypoglottic laryngitis by Ziemssen are of this nature, and are due to perichondritis of the cricoid cartilage. The high degree of aphonia met with in this disease is not found in any other laryngeal condition, except very rarely in cancer. The authors refer to their observations on restoration of the voice by formation of "supplementary glottides," in which cases the soft parts left after destruction of the vocal cord (ventricular bands, epiglottis, ary-epiglottic folds) take on a vibratory function and action like the vocal cords. Whether the term "glottis" applied to such a mechanism is not a misnomer is a matter of opinion. The authors draw attention to an overlooked observation of Barth and Beau—namely, the modification which takes place in pulmonary-auscultatory signs, in cases of stenosis from tubercular infiltration. The vesicular murmur is enfeebled, and there often exists besides, a propagation of the laryngo-tracheal souffle, which it is necessary to bear in mind in estimating the extent of the pulmonary change. As to cough, while oftenest of broncho-pulmonary origin, it may be laryngeal. Attacks like whooping cough are observed in cases where the recurrens or vagi are pressed upon by caseous glands.

The authors refer to a case of acute pharyngo-laryngeal miliary tuber-

culosis previously reported at the *Société Médicale des Hôpitaux*, in which the lesion was localised and initial, and which was cured. A year afterwards the patient was without any chest symptom. We are accustomed to believe in the absolute incurability of this condition. The authors deal in detail with glottic stenoses in the tubercular, namely those due to lesions of the mucous membrane and subjacent connective tissue, those due to lesions of the cartilages, those of articular origin, those of muscular origin, and neuropathic stenoses.

With regard to the much disputed question of adductor spasm versus abductor paralysis, the authors offer some very sensible criticism. The original ideas of Rosenbach, appropriated and formulated as a kind of law by Semon, as to abductor paralysis, do not meet all cases, according to the authors, of neuropathic stenosis, and they do not accept as conclusive the observation of B. Fraenkel, which he latterly recorded as an event for laryngology. The generalisation of this theory of abductor paresis into an absolute law is directly assailable. Gouguenheim and Tissier conclude that cases of stenosis exist which are due to contraction of the adductors, just as there are others due to paralysis of abductors. The upper air passages, in their double capacity of phonatory and respiratory mechanisms, have come to have a perfectly co-ordinated series of acts. As regards the movements of muscles requisite for phonation, a special nerve influence of the spinal accessory is predominant. In order to maintain an open glottis permeable to air, outside all phonatory requirements, a reflex tonic action by means of the vagus is constant, both during respiration and expiration. These actions are in some degree antagonistic, but if the sound-producing mechanism is interfered with the glottis assumes a position intermediary between extremes, and under the influence of respiratory current notably impede respiration if the lesion is bilateral. If the lesion, however, affects mostly the reflex influence of the vagus, the predominant influence of the spinal accessory brings the cords into the mid-line. It is the diminution of the respiratory tonus which brings the cords into the mid-line. Why should peripheral degeneration of the recurrensts or pressure upon them act selectively upon the vagus tonic reflex action? Disassociation is not impossible, and we see cases—hysteria (Gerhardt), laryngeal phthisis (Mackenzie), lead or arsenical poisoning—in which the opposite condition obtains, in which the dilator influence predominates, and the cords are in extreme abduction. The action may be brought about by compression and irritation of the recurrensts (pleura, glands), as proved by Krause's experiments, and sustained by the experiments of Zederbau, the first effect of compression being to suppress reflex excitation, preserving motor excitation. The first effect of compression of the recurrent or vagus will be, therefore, to suppress continuous reflex tonic excitation of this nerve, and to produce glottic closure. Bernard proved that the vagus lost its excitability more quickly than the spinal accessory. The vagus fibres in the recurrent are much less numerous than the spinal, and are of somewhat more special structure, and the pathology of the vagus (tracheo-bronchial adenopathy, Baritz, Guéneau de Mussy, Bourdon, etc.), demonstrates how great is its susceptibility. This theory explains also the relief obtained in these stenotic conditions by administration of anæsthetics, and it accords perfectly with the physiological experiments of Bernard, Chauveau, Fr. Hooper, and Krause, and with clinical facts. A short chapter follows upon *Lupus of the Larynx*, and its relation to tubercle, and some detail is given in the succeeding chapter to the diagnosis of laryngeal phthisis. The condition of the larynx is the best differential sign between tubercular and syphilitic pulmonary phthisis. That the latter is not rare is proved by Pancritius, who in 1881 related 109 cases. As to prognosis, the authors think that phthysical ulcers may be cured under treatment, or even spontaneously ;

but this is exceptional. Recurrence is sure to take place. Very truly they remark that since one cannot speak of a cure of pulmonary phthisis, one can only expect amelioration and palliation. We naturally turn to the chapter on treatment which closes the book, with much interest in view of recent literature of the subject.

The authors, quoting the observations of Heryng, state laryngeal phthisis to be curable beyond doubt in a certain number of cases. This result may, however, be often obtained under hygienic treatment. The authors speak well of insufflations and inhalations of medicated vapours, but condemn sprays. Menthol they do not think preferable to cocaine. Sub-mucous injections of iodoform have given good results, but these are not permanent. Iodoform cannot be replaced satisfactorily, according to the authors, by iodol, salol, or boric acid. Iodine and caustics are passed under review, and of the latter the most interesting remarks are those concerning lactic acid, with the employment of which the authors are satisfied that cures can be obtained in some cases. The authors have used the galvano-cautery largely for the treatment of vegetations and hypertrophies. They advocate tracheotomy in patients whose lungs are little affected, temperature nearly normal, and general condition satisfactory. Extensive disease of the lung does not contra-indicate the operation if the temperature be not high and digestion be good. Ranging themselves on the side of Moritz Schmidt as opposed to the pessimistic views of Isambert, Morell Mackenzie, Solis-Cohen, Lennox Browne, &c., they regard the operation (from an experience of ten years) as one likely to prolong life. Some remarks on general treatment close this chapter. The book is illustrated with a number of cuts, very well executed and with three chromo-lithographs, representing the laryngoscopic appearances in laryngeal phthisis. Of these we are compelled to say that they are no better, if perhaps no worse, than most of such illustrations usually are. The colouring is too high, and the larynx is seldom or never of the fiery redness depicted in these pictures in phthisis. This, and in parts a certain redundancy of language, with perhaps too frequent reference in connection with points under discussion, to pages before or to follow, are, the only faults we can find with the work, which is an important one, and indeed, as the authors remark in their preface, the only complete monograph upon laryngeal phthisis since the classical treatise of Trousseau and Belloc. It is a work which must be read by every specialist, and should be read by every physician, and we congratulate the authors upon having produced a very readable and instructive work, not the less valuable for the very numerous original observations and remarks which are to be found in every chapter.

R. Norris Wolfenden.

NOTE.

WE are requested to state that amongst the list of Fellows attending the meeting of the British Laryngological and Rhinological Association on November 14th, the name of "Dr. WARREN," which appears on p. 462, Vol. II., December, 1888, should have been "Dr. CHARLES WARDEN." We beg to assure Dr. WARDEN that this was a printer's error, which we regret.

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ON THE RELATIVE MERITS OF EARLY AND
LATE TRACHEOTOMY IN CHRONIC
DISEASE OF THE LARYNX.¹

By LENNOX BROWNE, F.R.C.S., Ed.

THE relative merits of early and late tracheotomy in chronic disease of the upper air passages and, for that matter, the question whether the operation should or should not be performed at all, is one which has hitherto been almost entirely ignored, in precept, indeed, if not in practice; and in no treatise, either special or general, has it been proposed for consideration in the comprehensive manner, and in comparative aspect, as now offered, at the suggestion of the Council of this Association. The subject will be treated in regard to the following chronic or sub-acute laryngeal diseases :—

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|--|-----------------------|
| 1. Chronic Inflammation and
Perichondritis. | 4. Syphilis. |
| 2. Lupus. | 5. Benign Growths. |
| 3. Tubercle. | 6. Malignant Growths. |
| | 7. Neuroses. |

As a preliminary basis of our consideration, I would venture to announce certain postulates :—

(a) Tracheotomy is indicated in chronic laryngeal disease (1) on account of urgent dyspnoea caused by an exacerbation of inflammation in the course of a chronic malady; and (2) in certain diseases in which our prognosis points to a progressive, though possibly, gradual, increase of respiratory difficulty. In the latter case the operation, if performed early, is more likely to be both immediately and remotely successful, than if delayed until resulting pulmonary changes have become pronounced.

(b) The degree of vital danger which exists in a case of laryngeal and tracheal obstruction depends mainly on the situation of the lesion.

¹ Read at the Second Session of the British Laryngological and Rhinological Association, March 27, 1889.

(c) Supra-glottic obstruction rarely causes vital risk. For example, inflammation, acute or chronic, unaccompanied, be it premised, by true œdema, and leading to thickening, ulceration, and cicatrisation of the epiglottis, ary-epiglottic folds, or of the ventricular bands, is not often accompanied by urgent dyspnœa, and this is indifferently true, whether the case be one of phthisis, lupus, or syphilis. I have made an exception with regard to true œdema, not such as exists in phthisis, which is in no sense of that nature, because I am of opinion, with Sestier and Morell Mackenzie, who hold that not only is œdema of the larynx much more rare than is generally supposed in Bright's disease—Mackenzie did not find it once in 200 cases—or in general anasarca, but also “that the intervention of a phlegmasia of the pharynx and larynx, or neighbouring tissues, is nearly always necessary.” I would go further, and express my belief that neither in the case of such an acute œdema, accompanied as it is by a general phlegmasia, usually the result of a septicæmia, or in that of one occurring in the course of a chronic syphilitic laryngitis, and causing difficulty of breathing, is the œdema often limited to supra-glottic regions, but that that most dangerous of all situations, the portion immediately below the glottis, is almost invariably involved, and that this is proved subjectively, even where not visible, by the inspiratory and paroxysmal character of the dyspnœa.

An exception in some sense has also to be made to this proportion in regard to cancer, in which the disease, although it be apparently situated at a spot not interfering with the glottic patency, may, by extension into the deeper tissues, produce an obstruction which is to all clinical intents and purposes of the nature of a neurosis—that is to say, it is due to a paralysis of intrinsic respiratory muscles.

(d) Obstruction of the lumen of the glottis itself—by which I mean of that space bounded by the vocal cords—may be considerable without producing vital dyspnœa. Examples of the truth of this statement are frequently afforded in the cases of benign neoplasms, when attached to the superior surface or free edge of the vocal cords. The circumstance of this absence of respiratory difficulty is indeed of high diagnostic import in regard to their benign character.

A like, though not so complete, an immunity is also observed in cases of congenital or cicatricial webs of the vocal cords where there is no implication of other contiguous structure.

(e) Sub-glottic obstruction, whatever the cause, is always attended with the gravest danger to life, and it can be further postulated that the lower the situation of the obstruction in the windpipe, the greater is the risk; and also the less is the chance of relief being afforded by an artificial opening.

(f) It is not unimportant to premise—though not amongst an Association of Laryngologists, and less so than it was twenty years ago, even for the assistance of the general surgeon—that no tracheotomy ought to be advised, ^{that} ~~in~~ ^{that} ~~the~~ ^{the} ~~tracheotomy~~ ^{tracheotomy} ~~is~~ ^{is} ~~not~~ ^{not} ~~performed~~ ^{performed}, on account of chronic—it might indeed be said any—laryngeal disease without a thorough preliminary investigation with the laryngoscope, and further, that the same means of information should be practised before a tracheotomy tube is removed.

One of the first cases of tracheotomy in my independent hospital experience illustrated the necessity for enforcing this precaution, as well as the unwisdom of neglecting it. It occurred to me in 1874, in the person of a gentleman's servant, who had been tracheotomised by the house surgeon of a hospital boasting a special throat department, which was presided over by both a physician and surgeon. Not only was no laryngoscopic examination made prior to the opening of the windpipe—that might well have occurred—but the tube was removed after eleven weeks, and the patient discharged without such a step having been taken. The man came under my hands less than six months later, and was found to be the subject of serious stenosis, due to syphilis. It was urgently necessary to repeat the operation, and though I had the opportunity of seeing the patient for many years afterwards, I was never able to advise withdrawal of the tube. As further illustrations, one has only to look through the morbid specimens in our various museums to see how many cases there were in pre-laryngoscopic days in which tracheotomy was unnecessarily performed, and to recall as one—doubtless of many similar—the case under the care of Liston, and quoted by Solis-Cohen, in which a stenosis, having been successfully dilated through the tracheotomy wound from below, the tube was withdrawn, but had to be re-inserted on the following day.

It is fair, therefore, to make this postulate, that while the more expert the laryngologist, both in diagnosis and therapeutics, the less frequent will be tracheotomy in his practice; so also the less liable will the patient be to suffer from either a too early withdrawal or a too prolonged retention of the tube.

Proceeding now to detailed consideration of the merits of tracheotomy in the various diseases I have enumerated, we will take that first on the list, viz: 1. *Chronic Laryngitis and Perichondritis*.—I have come across but one author of recent times who speaks of tracheotomy in chronic laryngitis, for it is solely in the sub-glottic and so-called hypertrophic form that such a procedure would ever be necessary. But such a condition is not often found unassociated with a perichondritis, which may be of a simple or a specific character, and may lead either to an abscess or an ankylosis. At all events, the seat and character of the obstruction are in each case the same, as also are the indications for operation. The cause of sub-mucous infiltration in this region is, I suggest, not only that the mucous membrane is somewhat more loosely attached to the inferior surface of the vocal cords than to the superior, but also that there is a natural tendency towards œdema in the more pendulous position. Nor can I agree with the proposition of Catti—albeit it is supported by our President—that the cause of the dyspnoea in cases of obstruction from sub-glottic chorditis is due mainly to agglutination of the parts by viscid mucus, for I have seen many in which no such condition existed, but in which paroxysms of suffocation were of alarming character and frequency.

Provided the case be uncomplicated by any specific dyscrasia, early tracheotomy is strongly advocated, and retention of the tube is to be insisted on, either for the rest of life or for some months after the swelling may have happily been reduced by constitutional or local medication

or by mechanical means. Such a result is, however, but rarely attained, and the average duration of life after tracheotomy in this condition is about eighteen months.

2. *Tuberculous Laryngitis.*—Early tracheotomy has been advised in this disease on the two-fold plea (1) That the disease may be primary, and that by tracheotomy the lungs will be less liable to be infected; and (2) that functional rest is hereby afforded to the larynx, and a better chance given of success by topical medication. Curiously enough, it has to be added, that one of the strongest advocates of tracheotomy in laryngeal phthisis, Dr. Beverley Robinson, of New York, has also maintained that a laryngitis occurring in the course of a pulmonary phthisis is not necessarily, nor indeed frequently, of itself tuberculous, but is to all intents and purposes of the essence of an ordinary catarrh. Answering the first of these pleas, the probability of the tuberculous disease being primary in the larynx, I have to say that though I for many years believed in the possibility of a primary tuberculosis of the larynx, before it was actually demonstrated as a fact, I cannot agree that such a circumstance is other than rare in medical experience. And as to the second, I am not at all prepared to admit that absolute rest of the larynx is likely to follow a tracheotomy on a tuberculous patient whatever the stage. Moreover in no disease is more likely to occur the untoward risk of what we may call collapse of the larynx—a not unfrequent result of tracheotomy—which was first pointed out by Liston, and has since been insisted on by Whistler. Nor can I agree that the larynx can be more effectively treated by topical measures after tracheotomy than before, for, on account of the disposition to collapse just mentioned, the larynx is almost invariably far more difficult to examine, as also to be treated internally, after a tracheotomy tube has been introduced. Tracheotomy is advocated by Moritz Schmidt on the ground that it not only betters respiration—to the lungs I presume—but also that it deviates from the larynx the passage of irritating air—to which it has only to be replied that by use of oro-nasal inhalers and suitable atmospheres, the air to the larynx can be made non-irritating, and even beneficial, and this to a greater extent than can be provided for in the air which goes to the lungs through a tracheotomy tube. But the operation is also performed by Schmidt, by Heryng, and by Gouguenheim and Tissier, not only where the laryngeal disease is marked and advancing, but in cases in which the lungs are admittedly affected.

The last named joint authors in their recently published classical treatise hold that even extensive disease of the lungs does not contraindicate the operation, if the temperature be not high, and digestion be good—to which condition I cannot assent, for a comparatively low temperature in laryngeal phthisis is by no means a favourable indication, while a good digestion is a circumstance hardly ever likely to be afforded us as a factor for consideration in this disease, and certainly not in advanced cases. I must, therefore, with all respect to the many able laryngologists who advocate tracheotomy in tuberculous laryngitis, offer my uncompromising opposition thereto, hardly excepting cases of urgent dyspnoea, in which it is considered as permissible by

Solis-Cohen, Morell Mackenzie, and Krishaber. I certainly would not perform it, except at the request of the patient or his friends, and not even then without very plainly stating that, although death might be thereby made less terrible, life would hardly be prolonged, and that only at some considerable expense of suffering and lingering distress. I think also that we ought to bear in mind that performance of tracheotomy in a case of advanced tuberculous disease is likely to bring both the operation and the surgeon who performs it into disrepute for, as to the operation, an unfavourable result in one case may militate against consent being given to its performance in another, where chances of permanent relief might be good; and as to the operator, especially if he be a specialist, there will not unlikely be found a medical brother (save the mark!) who will speak of tracheotomy having been performed by one who would not or could not look beyond the narrow area of his special province.

3. The subject of *Lupus* in relation to tracheotomy may be dismissed in a few words, for it is but seldom that there is infra-glottic stenosis. A curious feature of this disease, when occurring in the larynx, which amongst others, distinguishes it from tuberculosis, is that there is considerable anæsthesia, and by far the majority of patients that come under notice have experienced no symptoms of dysphagia or dyspnœa, which warned them of the extent of the tissue change which is found on examination to exist. A striking example of this circumstance occurred in the practice of my colleague, Dr. Orwin. The case which had been published by him, and is also, by his permission, narrated and depicted in my work, was that of a girl, aged twenty-one, who applied for treatment on account of lupus of the nose, but who, on examination, was found to have such agglutination of the ventricular bands that the orifice between them was reduced to the size of a goose quill; a normal voice and complete absence of stridor showed that this stenosis was supra-glottic. Dr. Orwin, recognising the danger of leaving such a condition unrelieved, commenced dilating treatment; this producing gradually increasing stridor tracheotomy was performed, but, as a matter of fact, the patient stated that she had never suffered seriously with her throat, and "reckoned it well" on her application at the hospital, though, in all probability, as elicited in the history, this supra-glottic stenosis had existed upwards of ten years. No stronger illustration could be offered as to the necessity of examining the larynx in every case of lupus.

4. There are two stages of syphilitic laryngitis—I might add tracheitis—in which the question of tracheotomy has to be considered. The first, that of acute œdema, which is so common an occurrence in the earlier tertiary period. This œdema may occur during the ulcerative process, or it may be due to development of a gumma, or to perichondritis, and will often be reduced by prompt and appropriate constitutional measures, and in no disease will the surgeon who uses the laryngoscope both intelligently and diligently have more gratifying reward for patient watching and perseverance in treatment. Of such a fact the experience of all specialists will afford example. I will mention one of several, in which a patient—I need hardly say a hospital one, for private patients are seldom so constant—has attended me weekly or fortnightly for about fifteen years. Twice

he has been taken to a general hospital and threatened tracheotomy, but he has been now free from acute attacks for nearly ten years. He is the subject of more or less glottic stenosis, for which he is treated by the passage of a large cotton wool brush, charged with a solution of sulphate of copper.

Supposing a tracheotomy to be called for in such a case of œdema, there is a reasonable hope that the tube may be dispensed with. A pea-valve may always be very early employed, and the sooner an orifice is made in the upper aspect of the tube the better. Some years ago I saw in consultation and assisted in the operation and treatment of a colonel in the army, under the care of Mr. Nunn, in which case, after three months and for a period of nine, the patient gave the word of command with the tube in his throat, and was enabled to dispense with it at the end of a year.

The second phenomenon in the course of a syphilitic laryngitis, for which tracheotomy is indicated, is that of stenosis, and this is usually infra-glottic in position. It occurs at a quite late period, ten, fifteen, twenty, or even thirty years after primary infection. Without doubt these cases are becoming less frequent, and will become still more rare, as the use of the laryngoscope and topical laryngeal medication becomes more general. They are at the present day much more uncommon in the United Kingdom than in Austria-Hungary and Poland: whether this circumstance is due to causes racial, climatic, hygienic, or dietetic—I speak more especially of the use of raw spirits—is not now a question to be considered, but it is important to note that the treatment adopted also differs essentially, or at least yields very different results. I suppose few of us can claim many such cures of sub-glottic and tracheal stenosis as are reported by Schroetter, of Vienna, Navratil of Buda-Pesth, or Heryng of Warsaw. I confess that I have seldom had a case in which attempts at mechanical dilatation *without cutting* have not rather increased the distress and precipitated a tracheotomy by promoting suffocative spasms of a serious grade, nor have I after opening the windpipe been much encouraged to persevere in mechanical dilatation with any hope of being able to remove the tracheotomy tube. I believe it to be better surgery whenever we are convinced that there is an obstinate stenosis due to syphilis, to perform an early tracheotomy, and to advise a life-long retention of the tube. I have only to add that the lower the tracheotomy can be made in such a case the better, for nothing is more deceptive than the apparent high situation of a stenosis as viewed by the mirror, and nothing more distressing than the disappointment so frequently experienced of finding that our tube has not reached the stricture, or if it has relieved an upper one, its introduction has been rendered useless by the existence of another at a lower level.

5. In benign neoplasms tracheotomy is sometimes necessary where the growths are situated on the under surface of or beneath the vocal cords; attempts at removal set up suffocative spasm. In such a case it is better to perform tracheotomy early and at leisure, after a mild warning, than to have to do so as a matter of urgency. After the operation the growths can not unfrequently be removed from below the glottis through

the external tracheal orifice. The operation is also sometimes necessary in the case of congenital papilloma, as a preliminary to thyrotomy or other procedure.

6. Malignant neoplasms of the larynx call, in my judgment, for early tracheotomy, whether it is intended to remove the growth or not. In spite of one, or at the most of two or three, rare cases in which resection of the larynx has been successful, by affording a period of prolonged life, with comfort equal to that by tracheotomy, I have, as the result of a by no means small experience, come to the conclusion that attempts at radical removals of a cancer of the larynx are not only highly dangerous immediately, but most unsatisfactory in the more remote relations, of recurrence of disease and prolongation of comfortable life, and that they do not bear favourable comparison in any one respect with the operation of tracheotomy. It is most important to note that this last operation exerts a favourable influence in three directions : (1) In relief of dyspnœa ; (2) In retardation of the disease, especially in the case of an intrinsic epithelioma ; and lastly, in relation to dysphagia, which is almost always relieved to an extent that at first thought might appear inconsequential. I could relate many cases in support of the strong position I venture to take for early tracheotomy in malignant disease of the larynx : and I need not refer to the oft-quoted statistics of Fauvel in support of my contention. One patient will be presented at this session for examination, on whom my colleague, Dr. Dundas Grant performed tracheotomy some thirty-two months ago, with all the good results which I have enumerated.

An important element in considering the question of any operation on the larynx for malignant disease is the determination, as far as possible, whether we have to deal with an epithelioma—*cancer* in fact—or with a sarcoma. Cancerous growth, if it can be called growth—perhaps it would be better to say the cancerous process—has, within each of its constituent elements *intrinsic* decay, which commences almost from the date of its birth. A sarcoma, on the other hand, represents an unlimited repetition of cell growth, which decays by the ordinary process of inflammation : in other words, either from *extrinsic* irritation, or from the new growth increasing beyond the power of the vascular and nervous supply to sustain living. Sarcoma, therefore, while it ranks as a less malignant disease than epithelioma, is the more terrible when it occurs in the air passages, as it knows no bounds, and much more frequently and more immediately invades the lymphatics.

In a case, therefore, of supposed malignant disease of the larynx, and especially if the respiratory mechanism be impaired, no good purpose is subserved by delay, for supposing even that the diagnosis should haply have been made of a graver malady than the after history confirms, and the cannula may in time be even dispensed with, not only would no harm have been done, but, on the contrary, there would have been a gain to the patient, if only in the saving of the muscular force wasted absolutely in dyspnœic breathing. This is a consideration but too often neglected, except in the case of paralyses, in which it forms, according to all writers, the chief argument in favour of an early tracheotomy.

And this brings us to the last disease which I have noted—

namely, (7) *Neuroses of the Larynx*—for consideration in relation to our subject for discussion. The only form of laryngeal paralysis for which tracheotomy is indicated is that in which the abductors are both implicated: and I do not think we need make any great distinction, in case the dyspnœa be urgent, between neuropathic and myopathic cases. I would only make a respectful claim for rather more patience than is often allowed in efforts at treatment, constitutional and local—of the latter, I would especially name strychnia injections and the use of the constant current—and I would also say a few words as to those cases in which bilateral paralysis of abduction occurs from pressure of an enlarged thyroid, enlarged bronchial glands, or an aneurism. In neither case is it easy to ascertain how much of the distress may be due to direct compression of the windpipe, and how much to implication of both recurrences; but only in the case of goitre is there much chance of relief by operation, and that not as a rule of the nature of an artificial opening, but by removal of a portion of the gland, or by electrolysis. Whenever bilateral paralysis of the abductors is caused by enlarged bronchial glands or by an aneurism about the bifurcation, we may be pretty certain that there is also direct pressure, with probably also a thinning of the tracheal wall at the seat of stricture; and that therefore tracheotomy will be futile.

I have thus, and I fear imperfectly, endeavoured to present my views on this important subject, and have intentionally taken such a line as to allow of some direct issue with those who may differ from me.

To resume shortly:—

1. Early tracheotomy, with retention of the tube, is advocated in chronic sub-glottic laryngitis and in perichondritis, causing sub-glottic stenosis.
2. Tracheotomy, either early or late, is not advocated in tuberculous laryngitis.
3. It is but rarely necessary in lupus.
4. It is to be performed in œdema, occurring during the course of a syphilitic laryngitis, only after patient treatment has failed; and when performed for such a condition there is a fair chance that the tube may after a time be dispensed with.

Tracheotomy is preferable to attempts at dilatation in the case of syphilitic stenoses, and the tube has generally to be retained for life. Not unfrequently the operation fails on account of inability to reach the seat of stricture.

5. The operation may be necessary in benign growths of the larynx, and, when indicated, is better performed early.
6. Early tracheotomy is strongly advocated in malignant disease of the larynx as the safest and surest means of prolonging comfortable life, and in this respect is superior to attempts at radical extirpation.
7. Tracheotomy is necessary in cases of bilateral paralysis of abduction, and should not be delayed if treatment fails to arrest the progress of the disease. It is seldom successful in cases of dyspnœa, caused by pressure low down in the trachea.

SYPHILITIC FIBROID DEGENERATION OF THE NASAL PASSAGES AND PHARYNX.

BY JOHN NOLAND MACKENZIE, M.D.

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IN the later stages of tertiary syphilis, there is not infrequently a marked tendency to the gradual deposit of fibroid tissue in the larynx, which contracts the lumen of that organ not only by the shrinking of the new-formed tissue, but also by the formation of large, dense, fibroid tumours, which are often mistaken for and described as gummy tumours, but which pathologically have nothing in common with them, and which clinically demand an entirely different mode of treatment. These fibroid growths occur as hard, dense, nodular masses, in various portions of the larynx. Acute ulceration frequently occurs, and threatens life from its accompanying œdema. Each succeeding attack of ulceration increases the tendency to fibrous formation, and increases, therefore, the gravity of the case. In this variety of laryngeal syphilis, which has been insisted upon especially by Whistler, no retrograde metamorphosis takes place; it is an essentially progressive process, and the calibre of the larynx becomes diminished sooner or later by an irregular nodular mass—half hypertrophied tissue, half cicatricial bands—which does not subside under local or internal treatment, and which, if extensive, calls for tracheotomy.¹

This fibroid degeneration of the larynx has not received the study it deserves, and many writers on laryngeal syphilis overlook its existence entirely. It occurs not only in the constitutional syphilis of the adult, but also in the congenital form of the disease.² While the laryngeal affection has been recognized for some time, the presence of interstitial fibroid (syphilitic) degeneration in the nasal passages and pharynx has, as far as I know, received little, if any, attention at the hands of rhinologists, and, as the subject is one of both clinical and pathological importance, I will give a brief description of its chief characteristics.

Like the fibroid changes in the larynx, it is mainly met with in those long neglected cases, with their story of a life of reckless dissipation which turn up at the hospital and dispensary. I have seen it more commonly in men, and especially in those addicted to the constant use of large quantities of alcoholic beverages.

While it occasionally affects the septum and other parts of the nasal cavities, the turbinated bodies are the structures which chiefly suffer, and in which its pathological nature may be more conveniently and satisfactorily studied. These bodies are very much enlarged, and present the appearance of dense, hard, whitish, yellow, or red sessile masses, or are converted

¹ For a full account of this form of laryngeal syphilis, see article by the author on "Syphilis of the Larynx, Trachea, and Bronchii," in Wood's Reference Handbook of the Medical Sciences, Vol. IV., p. 442 (New York), 1887.

² See article by author in American Journal of the Medical Sciences for October, 1876.

into distinctly pedunculated growths, which not only resemble, but are in actual fact, true fibroid polypi of this region. Indeed, I am inclined to believe that a large proportion of the so-called fibroid tumours of the nasal fossæ in syphilitic subjects are none other than the prolongations of the degenerate turbinated bodies. These fibroid bodies obstruct the passage of air, and often alter in a marked degree the anatomical relations of the parts. They are sometimes attacked by ulceration, and in this way partially destroyed; or they may be bound, as the result of the ulcerative process, to opposing structures by dense bands of cicatricial tissues.

Portions removed with the snare present under the microscope a more or less complete conversion of the turbinated body into a dense fibrous tissue. The erectile cells and glands are either totally obliterated or inconspicuous, whilst the encroachment of the fibrous process on the epithelial layers impedes its nutrition, and causes degeneration and detachment of its cells.

In this way it happens that the greater part of the mass is destitute of epithelium. As far as my limited experience goes, it would seem that the tendency in this variety of nasal syphilis is toward the production of fibrous out-growth rather than in the direction of final atrophy, and this point may serve to differentiate it pathologically, from the ordinary hypertrophic catarrh of syphilis.

The pharynx is probably less frequently than the nasal passages, the seat of fibroid degeneration. The parts most commonly involved are the tonsils and faucial pillars, which are sometimes converted into a dense mass, in which all trace of their original anatomical appearance is lost. In one case, the uvula was enormously enlarged, elongated, indistinctly lobulated, of the hardest consistence, and interfered markedly with the muscular movements of the palate.

In the nasal passages the growths may be removed with the snare or cautery, or destroyed by other well-known methods. Destructive measures are of some use in the pharynx, but are often far from satisfactory in their results. While in the nasal affection the disease may obviously lead to a host of serious complications, in the pharynx it may exist with comparatively little discomfort to the individual.

Care should be taken not to confound these masses, especially in a state of ulceration, with gummatous infiltration. The most important points of differentiation are the negative effect of constitutional treatment; the tendency to well-defined outgrowth; the surrounding anæmia, and the hard, dense sensation communicated to the finger through the probes, which is entirely distinct from the soft, elastic feel of the gummatous tumour.

THERAPEUTICS, &c.

JACOBI (New York).—**Therapeutics of Infancy and Childhood.** *Archives of Pediatrics*, January and February, 1889.

IN the course of some very interesting clinical remarks on this subject, the author speaks of having on one occasion lost a little patient through scarlatina, from which he was stricken down thirty-six hours after the resection of a tonsil, the operation being done during the prevalence of an epidemic of scarlatina. Dr. Jacobi recommends for the mild form of scarlatinal stomatitis and pharyngitis, $\frac{1}{2}$ -1 grain of chlorate of potash in a teaspoonful of water every hour or two. Diphtheria setting in on the fourth or fifth day is seldom alarming, when on the first day, or previously to the scarlatinal eruption, it is quite ominous. It is then often accompanied with rapid glandular swelling and serious sepsis. Ice to the neck is serviceable, or if the glands suppurate, deep incisions and carbolic acid. In milder cases, one part of iodoform in 8-12 of collodion will have a good effect.

Speaking of measles in infancy, the author thinks that epistaxis may be left alone when mild. It is sometimes a relief to the congested mucous membrane. If severe it must be arrested. In measles there is always nasal catarrh, which may early lead to tumefaction of the lymph bodies in the neck. The catarrh should not then be left alone, but should be treated with injections of salt water or boracic acid. There is always some catarrh of the larynx. If the croupous symptoms are very urgent, the air of the room should be charged with steam, and the patient encouraged to drink as much as possible, especially of alkaline waters. Iodide of potash internally will do good, and so will an opiate, especially at bed time.

The incubation of mumps lasts fourteen to twenty-one days, and the infection takes place through Steno's duct. Thus careful hygiene of the mouth is the best preventive. When there is much pain, narcotics or ice may be applied. Iodoform collodion (1 in 8 or 10) applied daily is often quite successful. If suppuration occurs, incisions must be made.

In variola in children scabs must be removed from the nostrils to facilitate respiration. Œdema of the larynx or laryngitis may require intubation or tracheotomy on the shortest notice.

As to erysipelas, chronic nasal catarrh is often a cause in children. Some children will have erysipelas extending over both cheeks once or more every year. Operation wounds, such as tracheotomy and diphtheria, are also causes. Many cases are successfully treated by applications of one part of carbolic acid in eight, ten, or fifteen parts of oleic acid, not on, but around the erysipelatous area, rubbed into the parts at frequent intervals. Abscesses complicating erysipelas require large incisions and antiseptic treatment. Erysipelas of the neck is very often complicated with œdema of the larynx, and may require scarification, tracheotomy, or intubation.

R. Norris Wolfenden.

HUBER (New York).—Recent Observations relating to Intubation. *Archives of Pediatrics*, January, 1889.

THIS paper contains the records of a second series of cases, making, with forty-seven already reported, a total of ninety-four. Of these thirty-seven (or forty per cent.) have recovered. The cases were not selected, most of them being in thickly populated and poor districts. Intubation was resorted to whenever stenosis existed sufficiently grave to call for operative interference, no matter what complication was present. The author does not favour early operation, as a good number of cases recover under faithful employment of bichloride of mercury and steam. In reading reports of intubation one is struck by the frequency with which the tube is coughed out. This spontaneous expulsion is an advantage: the dyspnoea is usually relieved for hours after, and the same effect curiously is not observed if the tube be removed by the physician. The importance of this circumstance has led the author to utilise the plan, by introducing smaller tubes in order that they might be expelled by coughing, especially in cases in which there is membrane in the bronchi. This method the author terms "intermittent intubation." In the intervals, few medicines and stimulants may be administered, and the time of wearing the tube is shortened. This is, of course, not the same thing as introducing large tubes at intervals. Dr. O'Dwyer in his second series of cases, incidentally refers to the advantage afforded by employing smaller tubes in certain cases.

R. Norris Wolfenden.

ROBB, J. TAYLOR (London).—Idiosyncrasy with regard to Antipyrin. *Lancet*, July 28, 1888.

THE patient took 15 grains as a preventive against migraine—"I awoke "with a slight headache, and took a powder about half-an-hour after a light "breakfast. About eight minutes after taking the powder I felt nausea; "then I had a most violent attack of sneezing, which lasted for some time, "with temporary catarrh from eyes and nose. I also suffered from queer "sensations at the back of my neck and up my head, extreme tightness of "the chest and throat, with loss of voice and great difficulty in breathing. "My headache had gone, and my head felt the best part of me. Gradually "I got my breath back, and my chest and throat got relieved, but my "voice was hoarse for the rest of the morning."

Hunter Mackenzie.

SPURGIN, W. H. (Maryport).—The Uses of Antifebrin. *Lancet*, July 7, 1888.

THE author recommends the drug in ten grain doses in tonsillitis and allied affections of the throat. "In rheumatism and tonsillitis (any stage) "there is nothing like it."

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—Poisoning by Chlorate of Potash. *Lancet*, August 18, 1888.

AN annotation directing attention to two cases of the above, reported in the *New York Medical Record*, July 21, 1888. In the first case, two table-spoonsful had been taken by mistake for Rochelle Salts, and in the second,

it had been taken "by the pound" during two years for chronic throat trouble. Both proved fatal.

"We are so apt to think lightly of the power of this drug as prescribed in small doses, that it is well to know that in large quantities it can produce disastrous effects on the blood and the chief organs, and so cause death." It appears principally to affect the heart (fatty degeneration), the kidneys, and the blood.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—Hot Air Inhalations in Phthisis. *Lancet*, September 29, 1888.

AN annotation. The temperature of the dry air employed was from 40° to 60°C., gradually raised to 80°C. Inhalations were practised for three to four hours daily for a month, the only resulting unpleasantness being hyperæmia of the mucous membrane. Under this treatment, the tubercle bacilli are said to have disappeared from the sputum, and patients who had been falling away picked up strength and became quite robust. Dry air heated to 190°C. has also been inhaled with satisfactory results.

It is not stated from what periodical the above observations, made by Drs. Weigert, Berlin, and Halter, Westphalia, are taken.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—The Value of Inhalations. *Lancet*, September 1, 1888.

A LEADING article referring to the discussion on this subject at the Glasgow meeting of the British Medical Association (1888). "The most recent results are not encouraging to those who hoped great results from it (antiseptis in phthisis) . . . The consumptive needs, above all things, first, regular and vigorous expansion of the chest to improve the quality of the pulmonary tissues, and to assist in the expulsion of morbid products, and, secondly, perfect purity of air to mitigate the local lesion, and strengthen the constitutional condition . . . The fundamental principles of treatment just enunciated are not likely to be overthrown by any advance in therapeutics that the future has in store for us."

Hunter Mackenzie.

WILLIAMS, C. THEODORE (London).—The Value of Inhalations in the Treatment of Lung Disease. *British Medical Journal*, September 29, 1888. (A Paper read in the Section of Medicine at the Annual Meeting of the British Medical Association, 1888.)

THE conclusions of the author are as follow :—

(1) That the success of inhalations as a mode of medication depends principally on the easy convertibility into gas or vapours of such substances as are clearly desirable for the purpose. (2) That, consequently, bodies which are volatilised at ordinary temperatures are more readily absorbed by the lungs than bodies which have to undergo combustion before conversion into gases. (3) That all moist inhalations, whether steam, watery vapour, or spray, is the vehicle of medication, are but slowly absorbed by the lungs, and enter the circulation in small quantities, and, in some cases, not at all; the slow rate of pulmonary

absorption contrasting with the rapidity of gastric absorption of the same medicines when swallowed, as proved by their detection in the urine. (4) That medicinal inhalations are more useful in diseased conditions of the pharynx, larynx, and larger bronchi, than in those of the alveoli and lung parenchyma. (5) That in pulmonary disease the antiseptic respirators, while they lessen cough and reduce expectoration, exercise no lasting remedial influence on the diseased conditions of the lungs, and often seriously interfere with the freedom of respiratory effort, which is so desirable in the treatment of such affections.

A discussion followed, which elicited nothing new.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—Hydrofluoric Acid in Phthisis.
Lancet, September 22, 1888.

AN annotation dealing with an account, by Dr. Gager, of Arco, Hungary, of the treatment by this method of seventeen cases of phthisis. The drug is administered by inhalation in suitable chambers. It is stated to be contra-indicated in laryngeal phthisis, on account of the amount of irritation set up.

Hunter Mackenzie.

ALLBUTT, T. CLIFFORD (Leeds).—Davos as a Health Resort.
Lancet, October 13, 1888.

AN interesting article comparing the various Alpine health resorts, and the classes of patients who are likely to derive benefit from residence in them.

The author rightly points out that even incipient phthisis requires a more prolonged period of climatic treatment than is usually supposed by members of the medical profession.

Hunter Mackenzie.

SQUIRE, WILLIAM (London). — The Sulphur Springs of Great Britain, and their Therapeutic Action. *Lancet, August 4, 1888.*

THE author refers to the germicidal powers of sulphur, and to the amelioration of many glandular affections in children, and of lupus and phthisis, which follow its use, and which may be explained by its possession of this property.

Hunter Mackenzie.

LOWE, JOHN (Workington).—The Treatment of Consumption by Residence at High Altitudes. *Lancet, September 15, 1888.*

A SOMEWHAT racy article in favour of this method of treating consumption.

Hunter Mackenzie.

DENISON, CHARLES (Colorado).—The Preferable Climate for Phthisis. *British Medical Journal, September 29, 1888.*

THE following are some general contra-indications to an otherwise preferable high climate :—(1) The coldest season of the year, intensifying the effect of altitude. (2) Advanced age of the individual, rendering acclimatisation difficult. (3) An excitable, nervous temperament, aggravating the stimulation of climate, producing irritability, and sometimes wakefulness. (4) Valvular lesions, with rapid action of the heart, especially with the previous exceptions. (5) Marked and extensive

emphysema, pneumothorax, and hydro-pneumothorax. (6) Active pneumonia or existing hæmoptysis. If these are recent, the contra-indication is much less than if they are present; if remote and without other objections, these diseases are most favourably influenced by the change. If there is reason for some doubt, in any such otherwise favourable case, a gradual rise in elevation should be chosen. (7) High bodily temperature, whether it be rather constant, as in some inflammatory states, or in catarrhal extension beyond a tubercular zone, or whether it be regularly vacillating, as in tubercular infection, that is daily low or sub-normal in the morning, and up to 103 degrees or more later in the day, *especially with suspicious laryngeal complications*. (8) Extensive involvement of lung tissue in diseased action, that is, so that the healthy spirometrical record is more than one-half abridged. Advanced stages of disease render this contra-indication much stronger. (9) The stage of softening, if accompanied by marked pyrexia, or in one of decided hæmorrhagic diathesis.

Hunter Mackenzie.

CAUDWELL, E. (London).—**Death from Chloroform.** *Lancet*, September 1, 1888.

THE patient, aged forty-six, was about to undergo an operation for malignant growth at the back of the pharynx. He was put under chloroform, when his breathing suddenly stopped, and his face became livid, the action of the heart ceasing about two minutes afterwards.

On post-mortem examination, a neoplasm, about the size of a turkey's egg, was found growing from the right and upper part of the pharynx, involving the palate and right side as far as the uvula, and hanging down so as almost to touch the epiglottis.

The cause of death is believed to have been mechanical occlusion of the laryngeal aperture by the new growth.

Hunter Mackenzie.

GODFREY & COOKE (London).—**Patent Chloride of Ammonium Inhaler.** *Lancet*, August 18, 1888.

THE peculiarity of this inhaler is that it contains no water.

Hunter Mackenzie.

WOOD, H. C. (Philadelphia).—**Note on Nasal Bougies.** *Therap. Gazette*, January, 1889.

THE author thinks all forms of gelatine as a basis objectionable, because at first they are not stiff enough for insertion into a partly occluded passage, and, later on, they become stiff and horny. Dr. Wood praises cocoa-butter, used alone, as a basis. Employment of wax is altogether objectionable. The cocoa-butter, however, is entirely free from irritating properties, and melts rapidly in the nostril. The bougie should be introduced with the patient lying down, when it will be retained until it melts in a couple of minutes. The patient should lie down after insertion of the bougie, and the nostril should be closed with a pledget of wool, wetted with cocaine. The best remedy for hay fever, according to the author, is a bougie of one grain of hydro-chlorate of cocaine, together with one-twentieth grain of atropine.

R. Norris Wolfenden.

SADLER, M. P. (Barnsley). **Catarrhal Fever: Its Causes, Complications, and Sequelæ.** *Lancet*, July 14, 1888.

THE author believes that "the poison of catarrh, like that of measles, "seems to have a special tendency to cause irritation of the mucous membrane of the respiratory tract, though that of the digestive organs is by no means exempt." The symptoms of this irritation vary from a little running at the nose to a serious bronchitis. It runs a definite course—usually seven days—and is believed by him to spread by infection. The diminution in resistant power induced by catarrhal fever seems to afford the starting point for phthisis.

Hunter Mackenzie.

ANON.—Egyptian Cigarettes. *Lancet*, September 29, 1888.

THE European physicians in Cairo do not believe that, as recently stated in some of the lay papers, cigarette smoking has anything to do with the induction of cancer in the throat.

It is stated as possible that the heated paper, or probably the chlorine used in bleaching it, may induce a form of pharyngitis.

To avoid any such results it is recommended to follow the advice of an Oriental:—"Always use a cigarette holder, and in the holder a tiny "plug of cotton wool previously dipped in lemon juice, and changed every "time with the cigarette."

Hunter Mackenzie.

RINGWOOD, JOHN (Kells, Ireland).—**Concurrence of Febrile Diseases in the same Patient.** *Lancet*, July 7, 1888.

THE patient not only "had measles and fever concurrently, but a severe "attack of diphtheria, followed by scarlatina, and chicken-pox, all "within the space of seven weeks."

Hunter Mackenzie.

BOND, F. T. (Gloucester).—**Scarlatinoid Diseases.** *Lancet*, July 28, 1888. (From a Report as Medical Officer of Health.)

Dr. BOND groups under the heading "scarlatinoid" scarlet fevers, diphtheria, and croup. "Scarlatina has, since 1887, when it reached its zero "point, exhibited a tendency to increase, whilst diphtheria, 'its cousin- "german,' has continued to fall, thus following the lead of the former affection, "though not at an absolutely corresponding rate."

Hunter Mackenzie.

EDITORS OF "LANCET."—**Official Report on Back-to-Back Houses.** *Lancet*, August 4, 1888.

A LEADING article, referring to the report on this subject to the Local Government Board, by Dr. Barry and Mr. Smith. The editors quote the opinion of Dr. Tatham, that "in certain streets and courts (in Salford), "consisting of back-to-back houses, unfurnished with thorough ventilation, "tubercular disease was much more common than in other parts of the "same town, and that such disease occurred again and again in the same "houses." They also quote from the report above referred to, that, "other things being equal, death-rates increase 'in direct ratio with an "increased percentage of houses unfurnished with means for thorough "ventilation."

Hunter Mackenzie.

SANDWICH, F. M. (Cairo).—**Dengue in Egypt.** *Lancet*, July 28, 1888

EPISTAXIS occurred in five per cent. of the patients. It occurs frequently amongst the natives early in the epidemic.

The throat was complained of by less than one-fourth of the patients : it was then found to be abnormally red, without great swelling of the tonsils.

The swelling of the lymphatic glands (cervical, sub-maxillary, etc.) was unimportant. In India, the face has frequently been observed distorted from the amount of glandular swelling.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—**Effects of Dust in Flour Mills on Animals.** *Lancet*, September 29, 1888.

AN annotation relating to some experiments by M. L. Poincarré, on guinea-pigs, that had been kept for two years in the most dusty parts of a flour mill.

Of twenty animals, ten were alive at the end of two years. None died from tuberculosis. Catarrhal pneumonia, in some cases with localized interstitial pneumonia and extravasation of blood, was present. Dust was found more abundantly on the nasal mucous membrane than in the bronchi.

Hunter Mackenzie.

CARTER, WILLIAM (Liverpool).—**The Bradshawe Lecture on Uræmia.** *Lancet*, August 25, 1888.

IN the course of this able lecture, the author makes reference to the "distressing dyspnœa, frequently amounting to the most terrible asthma, "and to other disturbances of respiration to which Brightics are subject." This is explained as most probably due to a change in the calibre of the blood-vessels, rather than of the air-vessels : it is sometimes accompanied by the co-incident occurrence of spasm in the systemic arteries, as evidenced by coldness of the limbs, &c.

The agents which afford most relief to this symptom are consequently those which relax vascular spasm, and of these the most useful is ozonic ether. From half a fluid drachm to a drachm will generally mitigate or entirely remove the dyspnœa.

Hunter Mackenzie.

BEALE, LIONEL (London).—**Case of Typhoid followed by Measles, Parotitis, and Sloughing of the Face.** *Lancet*, August 4, 1888.

A FATAL case in a girl, aged twelve years.

Hunter Mackenzie.

PEARSON, DAVID R. (Kensington).—**Cigarette Smoking.** *British Medical Journal*, September 8, 1888.

THE writer mentions a case of "irritative" chronic bronchitis distinctly due to this cause.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—**Report of the Lancet Analytical Sanitary Commission on Egyptian Cigarettes.** *Lancet*, October 20, 1888.

IT was found that some proportion of Smyrna or Salvuk tobacco is commonly incorporated with Turkish in the manufacture of these cigarettes. If this

Smyrna tobacco is present in excess, the throats of some persons, if not all, will be injuriously affected.

Physicians are recommended to watch the effects upon the throat of their patients of cigarette smoking, and if unpleasant symptoms are observed, to substitute Turkish or English for Egyptian tobacco.

Hunter Mackenzie.

MURRAY, R. D. (India).—**A Case of Sporadic Scarlet Fever, Originating De Novo.** *Lancet*, October 27, 1888.

BESIDES narrating this case, the author refers to three others formerly reported by him (*Indian Medical Gazette*, May, 1876), one of which was an example of scarlatina maligna with sloughing of the throat, which rapidly proved fatal.

Hunter Mackenzie.

CALATREVENO.—**Whooping-Cough and its Treatment.** *Revista de Medicina y Cirugía Prácticas*, January 7, 1889.

THE author read a communication to the Medical Congress of Barcelona, in which he remarked, "Whooping-cough is not an exclusive disease of children: adults also suffer it. It is contagious, and it is believed that it is produced by a fungus; moist, heat, and sudden changes of temperature favour the outbreak of the disease. Feeble, scrofulous, and lymphatic persons are those who contract it more easily. It is not fatal by itself, but it may be so from its complications or consequences. Of these the most dreadful are hæmorrhages of various organs, especially auricular, which indicate the rupture of the tympani membrane." He claims that change of climate, extract of belladonna, inhalations of soda benzoate, insufflations of quinine and coffee through the anterior nasal openings, and antipyrin in doses of 1 centigramme a day for every month of the age of the patient, are the best therapeutic measures.

Ramon de la Sota.

DIPHTHERIA.

AIRY (London).—**Epidemic Diphtheria at Buxted and Maresfield, Sussex.** *Lancet*, September 1, 1888. (From a Report to the Local Government Board.)

"THE story is an oft-repeated one, in which a large proportion of attacks could not be perfectly traced to any definite source; whereas, in other cases, personal infection, and this especially in connection with school attendance, was the principal means of conveying the infection. In some cases, too, conveyance of the poison seems to have been due to clothing belonging to infected families, and this although the garments were not worn by children who had been themselves attacked. Numerous sanitary defects were discovered during the course of the inquiry, and investigation was made as to the possible influence of milk

"supplies and other conditions in the distribution of the infection ; but no
"sufficient explanation of the occurrence was forthcoming."

Hunter Mackenzie.

GRIFFITHS, H. T. (London).—One Lustrum of Diphtheria at St. George's Hospital. *Lancet*, July 14, 1888.

DURING the years 1882-86 ninety-one cases of diphtheria were admitted into St. George's Hospital, and in fifty-eight of these tracheotomy was performed. The mortality over the whole of the admissions was 83·6 ; over the cases of tracheotomy, 96 per cent.

The author quotes the following statistics of other hospitals :—St. Thomas's (1881-85), 194 admissions, mortality, 53 per cent. ; 106 tracheotomies, mortality, 74 per cent. Hospital for Sick Children (in a little less than five years), 66 tracheotomies, mortality, 62 per cent. St. Mary's (four years), 66 cases, mortality 61 per cent.

The author attempts to answer the question, Why this high mortality after tracheotomy ? The elements of success depend upon several factors—early operation, careful nursing, and removal of membrane when possible. The author does not believe in warm, *moist* air, but advocates warm, *dry* air before tracheotomy has been performed.

The author does not think that intubation will supplant tracheotomy, as its performance requires more readiness of hand, and demands more practice than the other operation.

Hunter Mackenzie.

LAMARTINE.—Diphtheria in an Adult. Sudden Asphyxia by detachment of False Membrane. *Leire Médicale*. Dec. 1888.

A GIRL of twenty-one was brought into the hospital with an attack of urgent dyspnœa. Nothing could be determined from the state of the pharynx, but there was left broncho-pneumonia, and albuminuria. The voice was raucous and muffled. In the evening the patient expectorated some false membranes and was better, but died suddenly in the night when trying to drink. At the autopsy false membranes were found in the larynx and trachea, and one of 2 millimètres thickness was discovered over the bronchial bifurcation, so placed as to obstruct both bronchi.

Joal.

EDITORS OF "LANCET" (London).—The wanton spread of Diphtheria. *Lancet*, July 21, 1888.

AN annotation referring to the "pernicious practice" of taking children to see and even kiss their playmates when dying or dead of infectious diseases.

Dr. Fussell, Eastbourne, refers to two instances in which outbreaks of diphtheria were distinctly traced to this practice.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—Diphtheria and Cow Disease. *Lancet*, August 4, 1888.

AN annotation referring to an epidemic of diphtheria in Moulsham, Essex. A careful investigation was made by Drs. Downes and Bodkin, and the following conclusions were arrived at :—(1) That certain cows have been

suffering from a disease, which caused small eruptions on the udder ; (2) that persons using this milk have been affected with diphtheria in a modified form ; (3) that other members of the same family using other milk have not been affected ; and (4) that when the cows in question recovered, their milk ceased to be injurious.

Hunter Mackenzie.

WRIGHT, ALFRED (Romford).—*Diphtheria and Scarlet Fever.* *Lancet*, July 28, 1888. (From a Report as Medical Officer of Health.)

THE opinion is expressed that there is a special connection between these two diseases, several cases of diphtheria having been noticed which appeared to have their origin in cases of scarlet-fever and *vice versa*.

(This opinion is at direct variance with that of Dr. Barnes, Eye, Suffolk, who has shown that a marked contrast exists between these two diseases in regard to *habitat* and method of outbreak.—*Journal of Laryngology and Rhinology*, Vol. III., p. 61.—H.M.) Hunter Mackenzie.

GROVES (Isle of Wight).—*Diphtheria.* *Lancet*, July 28, 1888. (From a Report as Medical Officer of Health.)

THE gradually increasing death-rate is viewed as "being mainly due to "diphtheria, which, in its passage across the island, has settled down in "a number of localities, where it has found conditions favourable to its "development and maintained vitality."

Hunter Mackenzie.

LENNANDER, K. G. (Sweden).—*Studies on the Relation between Croup and Diphtheria.* *Upsala Läkareföreningens Föreläsningar. Vol. XXIII., p. 245, 1887.*

THE author comes to the following conclusions, based upon his own and other observations :—Croup is a group of symptoms, which is neither etiologically a specific disease, nor anatomically dependent upon specific morbid alterations of the mucous membrane of the larynx (catarrh, croup, or diphtheria). Catarrhal, croupous, and diphtheritic inflammation can produce symptoms of croup, but can also exist without these symptoms. Symptoms of croup exist most frequently in diphtheria, appear now and then during scarlatina, morbilli, variola, etc., but can also depend upon causes of no infectious origin, such as pure catarrhal, mechanical, chemical, and mercurial irritations of the mucous membrane of the larynx.

Holger Mygind.

BLAXALL (London).—*Diphtheria at Midsomer Norton.* *Lancet*, October 27, 1888. (Report to the Local Government Board.)

SOME indications were present that "a series of throat affections which "were locally regarded as 'mumps,' formed the connecting links between "the several attacks and outbreaks of the well-known disease, and Dr. "Blaxall suggests whether these may not have taken their place in a "progressive development from so-called sore throat into true diphtheria."

As a result of the enquiry, the infection could be traced back a certain number of stages, after which all clue was lost, and nothing definite could be proven as to the etiology of the disease.

Hunter Mackenzie.

GONZALEZ DEL VALLE.—Remarks upon Diphtheria. *Siglo Médico, Madrid, October 7, 1888.*

IN an article designed to show the deficiency of our present knowledge regarding diphtheria, Gonzalez says that until it is clearly manifested what is the ferment given off by the microbe, and until the series of chemical evolutions, which must be determined to produce the membrane of the disease, be demonstrated, and it be clear whether the normal secretion of the mucous membrane, where the parasite lodges, is the fermentative substance, or if it is the same mucous membrane, and the functions of the muciparous glands existing in the place elected by germs be examined with attention, we shall not be able to act with certainty in this disease.

Ramon de la Sota.

PULAWSKI.—Contribution to the Treatment of Diphtheria. *Gazeta Lekarska, No. 36, 1888.*

THE author recommends repeated insufflations of iodoform, with employment of alcohol. He has thus treated seventeen cases with excellent result, two of which were grave. This method is particularly applicable to the cases occurring in the poorer classes. The author is of opinion that though iodoform does not kill the microbes, it opposes the production of ptomaines.

Constantin Karwowski.

OSUNA.—Five cases of Diphtheria treated with Pilocarpine. *Andalucia Médica, Córdoba, December 30, 1888.*

OSUNA, after making trial of various methods recommended for diphtheria, and experiencing a mortality of more than 80 per cent., administered pilocarpine in five cases, according to the formula of Dr. Brú, and, notwithstanding the pretended efficacy of this *specific*, only two cases recovered, the other three dying from asphyxia.

Ramon de la Sota.

PARKER, ROBERT, W (London).—Some Moot Points in the Surgical Treatment of Diphtheria. *British Medical Journal, September 22, 1888.* (A paper read in the Section of Diseases of Children at the Annual Meeting of the British Medical Association, 1888.)

A SUMMARY of the operative measures in the treatment of diphtheria, which contains nothing new. A discussion followed in which Drs. Ranke (Munich), Gairdner (Glasgow), Cameron (Huddersfield), Robertson (Glasgow), and Mr. Lennox Browne (London) took part.

Hunter Mackenzie.

PEINADO.—Must we Accept or Reject Caustics in the Treatment of Diphtheritic Sore Throat? *Gaceta Médica de Granada, October 15, 1888.*

THE author rejects caustic substances, when not only is the mucous membrane involved, but the contiguous tissues and numerous glands with adynamic fever, but he advises them when the affection is limited to the mucous membrane, and it does not exhibit general symptoms. The caustic which he prefers is a solution of iron perchloride 30°, which he applies every eight or twelve hours, according to the cases.

Ramon de la Sota.

NEALE, RICHARD (South Hampstead) -- **Diphtheria and Diabetes.**
British Medical Journal, September 15, 1888.

REFERENCE is made to a case published in 1884 by Dr. Allbutt, Leeds, who states in his communication that the relation between the two diseases is far from being unknown.

Hunter Mackenzie.

JACOBI, ABRAHAM (New York). — **Remarks on the Nature and Treatment of Diphtheria.** *British Medical Journal, September 22, 1888.*
(A Paper read in the Section of Diseases of Children, at the Annual Meeting of the British Medical Association, 1888.)

THE specific microbes of diphtheria have not been isolated. Still, it is probable that the disease never arises spontaneously, any more than scarlatina or cholera does. Its virus is very tenacious, and no spontaneous generation is required to explain its ravages. It avoids healthy surfaces, and there is one normal condition only which admits it, namely, the interstices between the epithelium of the tonsils.

Fatal laryngeal diphtheria is rare after puberty. Amongst the 600 tracheotomies of the author, there were but two after that period. It has been met with in the newly-born, but few of its victims are less than ten months old. Change of temperature and dry air, particularly furnace air, are predisposing agents. A disposition to it may be present in families, probably owing to their large tonsils and vulnerable mucous membrane. "Those who have had diphtheria once are more liable to have it again, either through permanent alterations in the mucous membrane and tonsillar tissue, or through storage of some virus in a lymph body, and auto-infection from that receptacle."

The pathognomonic symptom of diphtheria is its membranes; all other symptoms and features are subordinate to it. The character of this membrane depends to a great extent upon its locality. Where elastic tissue is present to a large amount, an antagonism to diphtheritic impregnation is maintained for a long time, *e.g.*, in the trachea, and the follicles of the tonsils.

Pavement epithelium yields a firm footing to diphtheritic changes; ciliated epithelium is not so easily affected; the muciparous glands prevent extensive destruction of the tissues, owing to the secreted mucus macerating and removing the fibrinous exudations.

The author answers the question, "Does membranous croup occur apart from diphtheria?" by saying that membranous croup is simple local and laryngeal diphtheria. Croup is spoken of as descending (from the fauces) or ascending (from the bronchi); the latter is most formidable.

Diphtheria ought to be distinguished from stomatitis follicularis, which sometimes has greyish superficial ulcerations; from erysipelas of the fauces, which has no membrane; and from abscesses. Suppuration (of the tonsils) may be present in diphtheria, as first pointed out by Fraenkel, but it is rare.

There is no difference between the membranous sore throat of scarlatina and diphtheria. The author has seen diphtheria without scarlatina contracted from a patient with scarlatina, and scarlatinal "pseudo-membrane."

The author records his conviction that many of the cases of so-called follicular tonsillitis are of a diphtheritic nature. The diagnosis of diphtheria is easy when the white follicular points are seen to coalesce and form a membrane. The "herpetic angina" of the French is frequently merely diphtheria. Punctated diphtheria is found in adolescents and older children who have frequently suffered from throat diseases. This is explained by the fact that every new attack of inflammation or suppuration has ended in the production of fresh connective tissue; then an invasion of diphtheria can but rarely form a large membrane on account of the compression of the lymph and blood vessels, and the replacement of the mucous membrane and its epithelium by cicatricial tissues. A good deal of this mild, punctated diphtheria is found out of doors—in the street. Though mild in one, it may prove "murderous" in another.

"Is the presence or absence of fever of any value in the differential diagnosis of the different forms of amygdalitis—catarrhal, fibrinous, suppurative, and diphtheritic?" "Every morbid process, catarrhal or diphtheritic, which is limited to the surface of the tonsil need not be feverish at all." This is because in such surface affections there is neither copious lymph communications with the system, nor nerve irritation by pressure or tension. The same applies to the vocal cords.

After some observations on treatment, the author proceeds to state his method of dealing with heart failure, and to make some remarks on the bichloride of mercury in the disease.

Heart failure is usually developed gradually. It is indicated by an increase in frequency and weakness of both heart-beats and pulse, by an occasional intermission, by unequal frequency of the beats in a given period (say ten seconds), or by the equalization of the interval between the systole and diastole, and diastole and systole. The latter is an ominous symptom. Heart failure may develop with or without warning, and there is no case of diphtheria, except, perhaps, those of the mild tonsillar form, but ought to make us afraid. Cardiac stimulants are indicated, and their administration ought not to be postponed until feebleness and collapse have set in. They ought to be given early, especially in those cases in which antipyrin or antifebrin has been administered. Digitalis, or sulphate of spartein if rapid action be wanted, may be given. The dose of the latter is one-tenth grain four times daily as a matter of precaution, or every hour or two hours in an emergency, to an infant one year old.

Alcoholic stimulants ought to be given early and freely. A few ounces daily may suffice, but the author has often seen ten ounces daily of brandy or whiskey save children who had been doing badly with three or four. There is no danger or intoxication from them in such septic diseases as diphtheria; caffeine, camphor, strychnine or Siberian musk may be given. Siberian musk in thin mucilage is the very best internal stimulant. Ten or fifteen grains ought to be given to a one or two year old child within three or four hours; if this does not restore the heart's action, the prognosis is very bad.

Mercury is the most useful internal remedy. The smallest daily dose of the bichloride ever given by the author in the beginning was fifteen milligrammes ($\frac{1}{4}$ grain) to a baby four months old. Half a grain daily

may be given to children of from three to five years: the doses vary from one-sixtieth to one thirtieth, freely diluted with milk or water. The author has great faith in the efficacy of the bichloride of mercury in this disease.

Hunter Mackenzie.

JOHANNESSEN (Axel).—The Appearance of Diphtheria in Norway.
Christiania Videnskabselskabs Forhandlingar, 1888, No. 1.

THIS valuable work, of which space only permits a short abstract, is based upon large statistics, and gives a comprehensive description of the appearance of diphtheria in Norway from 1803-1884. During this period there have been four great epidemics in Norway, between each of which diphtheria has been of very little importance; they have all been contemporaneous with the extensive epidemics prevalent in the greater part of the world, and all spread from several *foci*, having especially prevailed along the coast, being propagated to a great extent through the fisheries and the shipping trade. Epidemics of croup have been closely connected with the epidemics of diphtheria, and from this and other reasons the author considers croup as diphtheria localised in the larynx. There seems, however, in many localities to have been the reverse relation between the frequency of diphtheria and croup, and the latter disease has shown a tendency to reach its climax earlier after the commencement of the epidemic than diphtheria. Croup was also more frequent in large towns than in the country.

The time of incubation observed varied from a few hours up to three days, and was very rarely longer. The disease was spread mostly by fishermen, sailors, and travellers, often without they themselves taking it, and not unfrequently the contagion was dormant for a long period.

Out of 100 individuals attacked by diphtheria in Norway during this century, 61·4 were children, and 38·6 adults. Of the whole population 1·8 pro mille children and 0·6 pro mille adults took the disease, according to which diphtheria has attacked comparatively more adults in Norway than in any other country except Ireland. Croup of course prevailed mostly amongst children, only 2·3 amongst 100 individuals attacked being adults. The different sexes showed a different susceptibility to diphtheria and croup, diphtheria prevailing more amongst women, and croup more amongst men; but, on the other hand, the mortality of diphtheria was greater amongst men than amongst women, while the relation was the reverse in croup. The mortality of the population in diphtheria was the same in this country as in the towns, while the mortality of the population in croup was considerably greater in the towns.

Diphtheria and croup appeared with greatest frequency from November to January, and the contrast between the cold and warm season was much more pronounced as regards croup, which seems to show that the localization of the diphtheritic process to the larynx is more dependent upon the influence of the season. The epidemics of diphtheria and croup, however, very often commenced in the summer and the autumn. South and south-east winds are, amongst medical men in Norway, generally considered to have influence on the propagation of the epidemics a connection, however, which the author was unable to corroborate.

Diphtheria was reported not unfrequently to have attacked the same person more than once, and sometimes a special susceptibility was reported to have existed in certain families. This susceptibility need not be the result of a special individual want of resistance, but might also be owing to the circumstance that the same bad hygienic conditions (amongst which the author lays great stress upon the existence of hot and dry air) exert their influence upon the individuals belonging to the same family.

An interesting chapter is devoted to the frequency of palsies accompanying epidemics in Norway. The different epidemics have had a very different tendency to produce palsies during convalescence from diphtheria, the frequency of palsies varying from 50 to none out of 100 individuals attacked. Palsies often followed after slight cases of diphtheria, and were also observed to follow diphtheritic processes localized in other parts than the throat; and the frequency of palsies did not correspond to the intensity or extent of the epidemics. **Holger Mygind.**

CALDWELL (Chicago).—**Report of Seven Cases of Diphtheria treated with a Spray of Hydronaphthol, Papain, and Hydrochloric Acid.** *Archives of Pediatrics*, February, 1889.

THE treatment of these cases consisted in (1) keeping the bowels open; (2) injection of 2-6 ounces of milk every two hours; (3) spraying the throat every hour until temperature is reduced and breathing easy; then every hour, unless asleep, with the following mixture:—

R. Papain ʒ ii.
Hydronaphthol gr. iii.
Acidi Hydrochlor dil. gtt. xv.
Ag. destill. ad ʒ iv. M.

The addition of four drachms of glycerine increases the solubility of the papain. Of the seven cases, three were "so mild that it is probable the course would have been the same without treatment." One was already moribund when first seen, which reduces the number to three cases, in which the effects of the treatment could be noted. In these cases the temperature seems to have been remarkably reduced (from 103°-99°) by the continuous spraying, (?) and all the children made good recoveries.

R. Norris Wolfenden.

KRAUSS (Altica, New York).—**On the Pathological Anatomy of Diphtheritic Paralysis.** *Buffalo Med. and Surg. Journal*, January, 1889.

THE case recorded has been microscopically examined by the author in the laboratory of Professor Mendel, Berlin. The patient, a girl of eleven, died from severe diphtheritis, and special examination was made of the nuclei of the oculo-motor, the abducens, facial and hypoglossal nerves, of the intra-cerebral roots of the same, and of the blood vessels.

The ganglionic cells of the various nuclei were found to be in a normal condition as to size, number, form, and contents. The nerve fibres, and especially the intra-cerebral oculo-motor, were markedly changed. A small number of axis cylinders were destroyed; some were irregular, and others had lost their sharp contours. The myeline had become chemically altered, so that it took the stain in part. This was especially the case in

specimens stained with ammonia, carmine and picro-carmine. The capillaries, small and large arteries, were engorged, giving to the preparations the appearance of a vascular new growth. The veins in the floor of the fourth ventricle were, however, empty, and their walls collapsed. There was remarkable diapedesis of blood corpuscles, and there were many small hæmorrhages into the pons. There was much accumulation of blood corpuscles in the perivascular spaces.

The larger hæmorrhages were visible to the naked eye, and especially near the intra-pontile course of the nerves, and near the origin of the left oculo-motor, along the roots of which hæmorrhages had taken place; also along the sulcus oculo-motorius, and the intra-pontile course of the abducens and trigeminus. The general results of this investigation showed—

1. Normal nuclei of cranial nerves.
2. Degeneration in part of the oculo-motor.
3. Hyperæmia, diapedesis of blood corpuscles, and hæmorrhages of various proportions.

They agree with those of Mendel published in the *Neurologisches Centralblatt*, 1885, No. 6.

R. Norris Wolfenden.

MOUTH, TONSILS, PHARYNX, &c.

VAUGHAN, ARTHUR E.—Papilloma of Cheek. *British Medical Journal*, September 1, 1888.

THE growth, which was situated on the buccal mucous membrane, was removed with scissors, and its seat of attachment cauterized with the solid nitrate of silver. A slight scar alone remains.

The author refers to the absence of all mention in surgical works of papillomata in this position.

Hunter Mackenzie.

ACKLAND, W. R. (Clifton).—Papilloma of Cheek. *British Medical Journal*, September 15, 1888.

THE writer says that the papilloma of cheek recorded by Mr. Vaughan, of Crewe (*vide supra*) appears to be very similar to the inflammatory growths caused by the irritation of the sharp edges of broken teeth.

Treatment—smooth the edges.

Hunter Mackenzie.

KAMEN.—Bacilli of Syphilis in the Sputum. *Internat. Klin. Rundschau*, Nos. 2 and 3, 1889.

THE author relates a case of hereditary syphilis in a patient nine years old, with syphilitic pulmonary affection. The great interest of the case lay in the examination of the sputum. Bacteriological examination showed that tubercle bacilli were absent, but examination by Giacomi's method gave positive results, and the red-stained micro-organisms were found in the cells, identical with those described by Lustgarten as syphilis

bacilli. The sputum was examined before treatment was commenced. After mercurial inunctions the patient's condition improved much, and with the improvement the number of syphilis bacilli diminished. Some months later a recurrence followed, and the bacilli were again much increased. The case is the first in which it was possible to detect the bacilli in the sputum. It is also proved that the intensity of the disease is proportional to the number of bacilli present. Undoubtedly we have here a method of diagnosing syphilis of the lungs.

Michael.

THOMSON, G. W. (Haywood), **ILLINGWORTH, C. R.** (Accrington).—**Treatment of Salivation.** *British Medical Journal*, September 15, 1888.

THE former advises a strong form of counter irritation over the chest, the occurrence of healing being prevented. The latter cured a patient by inducing him to swallow all the saliva, and avoid spitting.

Hunter Mackenzie.

BELIN.—**Glossolabial Spasm of the Hysterical.** *Thèse, Paris*, 1888.

THERE exists among certain hysterical patients a deviation of the face characterised by contraction of the facial muscles on the deviated side. It is glossolabial hemi-spasm. The condition occurs singly, or more frequently along with hysterical hemiplegia. Unilateral glossolabial spasm presents many analogies with facial paralysis. The opinion of many authors who affirm that in hysterical hemiplegia the paralysis extends to the face, is thus explained. Up till now facial paralysis has not been met with in hysterical hemiplegia. Sensibility is abolished or diminished on the side of the spasm.

Joal.

FOULIS, J.—**The only way of Raising the Tongue, of Raising the Epiglottis, and of Stretching the Aryteno-Epiglottic Folds at one and the same time.** *Medico-Chirurgical Society of Edinburgh, Session LXVIII., Meeting VI., Wednesday, March 6, 1889.*

HE criticised the position taken by Dr. Howard in his paper read before the Medical Society of London, and endeavoured to show that it made no provision for a free air-way from the mouth to the lungs. Dr. Howard trusted to the nares being clear, but these were often obstructed by dirt and disease. Dr. Foulis advocated the raising of the tongue by means of an instrument which he called a glossoilt. This consisted essentially of a lever by which the fallen tongue and epiglottis were raised from the posterior pharyngeal wall and projected as a lump in the neck, the upper incisor teeth being used as fulcrum. In the absence of such an instrument, a spoon or fork handle would do equally well. By its means a free passage for air was secured, and artificial respiration, preferably by Howard's method, could be carried on while it was *in situ*.

In the discussion which followed, Dr. JOHN DUNCAN said the subject of this really admirable paper was one on which any of them who had had much experience in the giving of chloroform would be able to dilate for a few hours at least. When Mr. Benjamin Howard performed his experiments in London the other day, he believed they should all have been prepared to accept his paper as a well-reasoned exposition of the anatomo-

mical facts connected with the subject of respiration under chloroform, but, with the exception of some gentlemen who heard him at the London Society, some of them would take very strong exception to his terming it the "new and only method," and he (Dr. D.) rather regretted Dr. Foulis' use of the word "only." Mr. Howard's method was not new, nor was it the only one, nor was it very good. The practical application of his well-reasoned observations was not a thing to be imitated. He supposed that under chloroform the risks came solely from the respiration, and they came in various ways. There was a way in which the respiratory act simply died out without any obstruction to the respiration. With that method of death (it was very important to distinguish the various methods) they had not then to deal. Another method with which also they had little to do was the risk of solids and fluids getting into the air-passages, even thin fluids lying in the back of the pharynx having a great influence. The modes of death with which they were concerned that evening were those in which obstruction took place from a paralysis causing an obliteration of the upper air-passages. He supposed this occurred in two ways. One was paralysis of the aryteno-epiglottic folds of the opening of the larynx, in which a sort of valvular action took place, and the other, to which Dr. Foulis drew their attention, was the falling back of the tongue and blocking up of the pharynx. Now these two conditions might be easily distinguished in the experience of any one who had seen risk arising from them, and who had adopted the method of pulling up the tongue. In the one case the arrestment of respiration was relieved by the tongue being pulled slightly forwards. But in the other class of cases in which there was paralysis of the tongue, and of the orifice of the larynx, they required to pull very forcibly on the tongue to relieve it. They now came to the question of how best to overcome those difficulties. He was quite prepared to maintain that they were both capable of being overcome by pulling on the tongue from the tip, and they were also capable of being overcome, though not so completely, by pushing forward the angles of the jaw. He was quite prepared to admit that Howard's method, if carried out as he described it, was effectual in doing the same. How the pulling on the tip of the tongue acted he was not prepared to say, but he had suggested to Dr. Foulis that it might be by putting the fibres of the genio-hyo-glossus on the stretch. From all he had seen and heard he was strongly inclined to adhere to the old method, which was extremely effective, and required no instrument beyond what was in their pocket cases, and really produced very little injury to the tongue. He had no doubt Dr. Foulis' instrument was effective, but he was somewhat conservative in his notions. As to the modes of artificial respiration, he immensely preferred Sylvester's method to Howard's. He believed the air entered in greater volume, and was changed more rapidly in the former than in the latter method.

Dr. M'BRIDE failed to see how in any narcosis the ary-epiglottic folds could be paralysed, and how, even if they were, they could affect the respiration. The chief obstacle lay in the base of the tongue, and the epiglottis falling against the posterior pharyngeal wall. Theoretically it seemed to him that any of the methods they had discussed would be efficacious in getting these apart.

MR. CATHCART pointed out that in addition to the deep guttural sound emitted by patients under chloroform, there was another of a crowing character which seemed to support Sir Joseph Lister's view that the obstruction was sometimes nearer to the larynx than was supposed. He ventured to disagree with Dr. Duncan's opinion that pulling on the tip of the tongue was in every case successful. He had seen cases in which the patient was in imminent danger in which efforts to pull forward the tongue had failed to give relief. He observed this in one instance in Mr. Joseph Bell's hospital practice, in which, after tongue pulling failed, the finger passed down to the glottis was of immediate benefit. If the advantage of pulling forward the tongue were that of exciting reflex action, one could imagine that in deep narcosis the reflexes might be abolished, and in such a case the advantage of Dr. Foulis' mechanical method would be apparent. With regard to the methods of artificial respiration, he was inclined to think Sylvester's superior to Howard's. In the latter, expiration alone appeared to be produced, whereas in Sylvester's, the raising of the arms above the head produced inspiration, and the lowering of them, to compress the chest walls, expiration.

Dr. JAMES RITCHE has seen cases like those referred to by Mr. Cathcart, in which pulling the tongue forward failed to give relief, but pulling up the jaw did. In contrasting the methods of artificial respiration, he thought Mr. Cathcart had overlooked the fact that in the Howard method the arms were raised above the head in such a way as to give a very full inspiration. One of the great advantages of the Howard method, was that if it had to be undertaken single handed, it could be kept up without fatigue for a very much longer period than Sylvester's, and, therefore, it was a suitable method to teach to ambulance and swimming classes.

Mr. A. G. MILLER said the practice of pulling forward the tongue had originated with a house-surgeon of his father, the late Professor Miller. A slight operation was being performed when the respiration suddenly became embarrassed. The house-surgeon surmising that the tongue had something to do with it seized the tip with a pair of Liston forceps, and the breathing was at once relieved.

Dr. SYMINGTON showed in connection with Dr. Foulis' paper two horizontal sections through the head of a male subject made while the body was frozen and lying on its back. These showed the parts referred to in the paper. They showed that after death the tongue was very apt to fall back just as in chloro-narcosis. A considerable part of the dorsum of the tongue was lying in contact with the posterior pharyngeal wall, and the pharynx itself for more than an inch was little more than a transverse slit. It seemed to him that even a comparatively slight pull on the tip of the tongue would move it forward sufficiently to turn this transverse slit into a considerable cavity. So far as Dr. Foulis' method went, it seemed to him an admirable one not only by drawing forward the tongue but by keeping it there. He did not think Dr. Howard's experiments with water in the fossæ between the tongue and the epiglottis established anything. He also failed to see how the aryteno-epiglottic folds could interfere and close up the glottis. He agreed with Mr. Cathcart as to the obstruction

being sometimes in the larynx, and the experiments of Dr. Wylie helped them to understand that. Air blown into the ventricles might press the false cords together and prevent exit of air from the chest. In the majority of cases he believed the obstruction was due to the tongue falling back.

Dr. P. A. YOUNG preferred to teach ambulance students the Sylvester mode of artificial respiration, and thought that while the glossotilt might be an admirable instrument in skilled hands, it would prove dangerous if used by ambulance pupils. He did not think that Dr. Foulis had correctly represented the Howard method of artificial respiration. The arms ought to be raised and fixed beyond the head.

DRS. MACKENZIE OHNSTONE, and A. D. WEBSTER also made remarks on the paper, to which Dr. FOULIS replied.

Maxwell Ross.

YOUNG, G. R. (Birmingham), **HOLDERNESS, W. B.** (Windsor).—**Syphilitic Ulceration of the Tongue.** *British Medical Journal*, September 15, 1888.

THE first recommends the application of the acid nitrate of mercury on cotton wool, after cocaine.

The second recommends 1 oz. of glycerine of tannic acid, heated to boiling point, with 3 drachms of biborate of soda; extraction of all decayed teeth; cessation of iodide of potassium and mercury; give fresh decoction of sarsa; put patient on tonic treatment.

He also recommends calomel fumigation, locally applied.

Hunter Mackenzie.

CADELL, FRANCIS (Edinburgh), **O'CONNOR, J.** (Manchester).—**Syphilitic Ulceration of Tongue.** *British Medical Journal*, September 22, 1888.

DR. CADELL advises abstention from tobacco, and painting the raw surfaces night and morning with a 15 grain to the ounce of water lotion of chromic acid.

Dr. O'Connor recommends the local use of powdered boracic acid, and the internal administration of mercury and iodide of potassium, along with a mouth wash of potassium chlorate. Also abstention from tobacco.

Hunter Mackenzie.

THOMSON, H. A. (Edinburgh).—**Tubercular Ulcer and "Psoriasis" of the Tongue.** *British Medical Journal*, September 22, 1888.

"THE tongue showed two distinct conditions. There was an ulcer about the size of a florin along the left fore margin of the tongue quite close to the tip, irregularly circular in shape, edges thickened and only slightly raised, the base a good deal excavated, and occupied by somewhat shreddy granulations of indolent type. Immediately adjoining the ulcer was a series of irregular polygonal plates of a greyish-white colour, contiguous, but separated from each other by deep fissures."

The patient had the physical signs of phthisis in both lungs. He gradually sank and died in about a month. Sections through infiltrated parts showed tubercle bacilli in fair abundances.

Hunter Mackenzie.

SHEPHERD.—Case of Excision of the Tongue; death from Acute Miliary Tuberculosis. *Montreal Medico-Chirurgical Society Transactions*, January 22, 1889.

IN this case the tongue was excised for what was considered to be epithelioma. The lingual arteries were first ligated, and excision performed by scissors. On examination of the glands through the submental incisions, more involvement was found than had been determined by external manipulation. These glands were removed through the incisions made for the ligation of the linguals. The wound was packed with Billroth's sticky iodoform gauze, and drains were introduced through the mouth. On the fourth day the patient sat up and fed himself, but in the evening the temperature had risen to 101°, and he complained of a pain in his right side. Next day a well-marked friction sound was heard. The day following (the sixth) the temperature rose to 103°, and death resulted on the seventh day after operation. At the post-mortem examination the surface of both lungs showed numerous miliary tubercles. The right lung on section was found crammed with grey miliary tubercles. The left lung contained numerous miliary tubercles scattered throughout the upper two-thirds. The liver and kidneys contained a few miliary tubercles. Microscopic examination of the growth of the tongue showed tubercles on the floor of the ulcer, and around them abundant small-celled infiltration. The author regarded the case as one of tubercular ulcer of the tongue.

The occurrence of acute miliary tuberculosis at the advanced age of sixty-four years, the difficulty of diagnosis in the absence of other signs of tuberculosis, and the fact that the epididymis of the right testicle was found to be enlarged, and on section entirely caseous, make this report of more than the average interest.

George W. Major.

SPICER, SCANES (London).—The Tonsils (Faucial, Lingual, Pharyngeal, and Discrete); their Functions and Relation to Affections of the Throat and Nose. *Lancet*, October 27, 1888.

THE conclusions of the author are as follow :—

“1. The significance of the various tonsils is in their palpable relation to the blood-manufacturing system, and to the out-pour of copious secretions. The relation of the tonsils to the rest of the organism can be well appreciated by comparing them with the relations of the sewage farm to the town whose refuse it makes use of, and to which it returns its elaborated products.

“2. If any of the secretions delivered to the tonsils become contaminated in any way with irritating matters, whether generated in the system or introduced from without, these tonsils in physiological correlation with the affected secretion show irritative changes varying in degree.

“3. The functions and affections of the various tonsils afford the key to the comprehension and scientific treatment—and the prevention—of many of the most intractable and recurrent disorders of the nose and throat.”

Hunter Mackenzie.

CZAJKOWSKI, JOSEPH.—Contributions to the Etiology of Idiopathic Catarrhal Angina. *Gazeta Lekarska*, 1888.

THE author, as military surgeon, has during the last five years observed 311 cases of this condition. After having considered the etiology, local and general symptoms, such as fever, acceleration of pulse, epidemics localised in a house, and having made cultures and mycologic researches, he arrives at the following conclusions :—

1. The disorder is an infectious one which is propagated from one individual to another ;
2. The disorder is produced by staphylococcus and streptococcus pyogenes ;
3. Chills and local affections of the mucous membrane, lesions produced by mechanical, thermal, and chemical agents, act upon and predispose the affected parts, by diminishing their resistant force to the action of the microbes which produce the disorder.

Constantin Karwowski.

BEEHAG, ALBERT, J. (Sydney).—The Treatment of Pharyngeal Catarrh. *British Medical Journal*, September 29, 1888.

A COMPREHENSIVE *résumé* of the subject, which contains little new.

Hunter Mackenzie.

BLACKADER, A. D.—Some Cases of Retro-Pharyngeal Abscesses in Children. *Montreal Medico-Chirurgical Society*, November 16, 1888.

Dr. BLACKADER read a paper on the above subject. He referred to a case in his own practice, and had collected a number from other sources. Nothing new was elucidated.

George W. Major.

FENWICK, G. E.—Removal of Retro-Pharyngeal Tumours. *Proceedings of the Canadian Medical Association (Surgical Section)*, 1888.

Dr. FENWICK gave a short account of the various operations for removal of malignant and sarcomatous tumours in the region of the pharynx. The author had on two occasions removed tumours from the retro-pharyngeal region, and by an incision commencing above and behind the ramus of the jaw, and continuing round the angle of the jaw, and for a greater or less distance along the body. The first was carefully dissected, the vessels pulled outwards and the tumours reached with the finger ; if sarcomatous it could be easily shelled out. Dr. Fenwick's first case was operated on in 1880. The patient, a young girl, had a number of painful tumours in various parts of the body. One of these tumours was situated in the pharynx, behind the right tonsil, and caused great pain in swallowing. An incision was made commencing one-and-a-half inches above the angle of the jaw, and following a course a little behind and below the jaw ; the dissection was carried down in front of the vessels and below the digastric muscle, the finger was then used, the tumour reached, and easily shelled out. The patient made a rapid and complete recovery. The tumour was found to be a fibro-neuroma. The second case occurred in 1886, in a woman of forty-eight. The tumour was situated on the right side and posterior to the tonsil, and was as large as a hen's egg. An incision was

made from the lobe of the ear downwards, a little posterior to the ramus of the jaw, and was continued round the angle of the jaw to the front of the neck. To obtain more room a portion of the angle of the jaw was removed. After a careful dissection the tumour was reached and easily shelled out. The tumour proved to be a sarcoma. A rapid recovery followed.

George W. Major.

AVENDANO.—Treatment of Stenosis of the Gullet. *Revista de Ciencias Médicas, Habana, December 5, 1888.*

THE long or small permanent catheter is considered by Avendano as the most reasonable measure of treating œsophageal stricture of cancerous nature, and temporary dilatation should be restricted to most cases of cicatricial stenosis.

Ramon de la Sota.

FLINN, D. EDGAR (Kingstown, Dublin).—Stricture of the Œsophagus. *British Medical Journal, September 29, 1888.*

EPITHELIOMA was the disease present.

Hunter Mackenzie.

STEELE, CHARLES.—Case of Deficient Œsophagus. *Lancet, October 20, 1888.*

IN the case of a newly-born child, the œsophagus terminated above and below in blind, rounded ends an inch and a half apart; there was no cord or connection between the parts.

Hunter Mackenzie.

NOSE, NASO-PHARYNX, &c.

NATIER.—On Hay Fever. *Thèse, Paris, December, 1888.*

THIS is an excellent monograph, in which the author occupies himself only with the pathology and treatment of the affection. He energetically combats the doctrine recently sustained in France by Leflaive, that the malady was due to some general condition of the organism. Natier is convinced of the nasal origin of the disorder. The microbic theory ought, in his opinion, to be abolished. Only pollen and dust are necessary as exciting causes. Arthritism should be regarded as a favourable ground for the development of the affection; and it is especially necessary to admit a predisposing condition of the nasal mucous membrane. Natier recommends rhino-surgical treatment.

Joal.

PRZEDBORSKI.—Chronic Hypertrophic Rhinitis, and the Affections of neighbouring and distant Organs which may depend upon it. *Gazeta Lekarska, 1888.*

THIS is a good compilation presenting the state of anatomical, physiological, pathological, and therapeutical knowledge of the subject. The theory

164 *The Journal of Laryngology and Rhinology.*

of reflex neuroses, and opinions for and against, are deliberated in detail. No new or original ideas are emitted.

Constantin Karwowski.

DANIEL, RONALD (Petersfield); **PETERS, LEONARD G.** (Gobowen).—**Paroxysmal Sneezing.** *British Medical Journal*, September 1, 1888.

THE former recommends the administration of quinine in large doses in anticipation of the attack, with the local application of cocaine. The latter recommends cocaine locally, and aconite, arsenic, and quinine, combined, internally.

Hunter Mackenzie.

MAJOR.—**Sarcoma of the Nares.** *Montreal Medico-Chirurgical Society*, November 16, 1888.

THE growth was of the size of a small pigeon's egg, and grew from the triangular cartilage. It was removed with a cold wire, and the seat of origin destroyed by the galvano-cautery. The growth developed rapidly. No recurrences at an interval of four months. Microscopic examination proved it to be spindle-celled sarcoma.

George W. Major.

MIRÓ.—**Foreign Bodies in the Nasal Fossæ.** *Crónica Médico-Quirúrgica de la Habana*, July, 1888.

A CHILD, seventeen months of age, introduced into its left nasal fossa the calix of a rose; there followed great restlessness, fever, dyspnoea, and a thick and fœtid secretion. It was extracted with the forceps. Another child, ten months old, was sucking a pea-nut, when this went down into the larynx, where it excited dyspnoea and vomiting; in one of these attacks it passed into the posterior part of one nasal fossa. The author pushed the foreign body with an English catheter into the pharynx, from whence it was rejected by vomiting. A child, of five years of age, introduced a French bean into the nose, whence it was extracted with a bent probing needle.

Ramon de la Sota.

GOMEZ DE LA MATA.—**Ozæna.** *Revista de Laringología, Otología y Rinología, Barcelona*, October, 1888.

THE treatment which Gomez employs is the following: If the disease is syphilitic, naso-pharyngeal douching with a tepid solution of sublimate, 1 in 6000, during two or three days, then with hydrate of chloral 10 grams, carbonate of soda, borate of soda aa 8, water 2 litres. During the night are introduced in the nose bougies, anointed with the following pomade: iodoform 4 grams, vaseline 10, oil of cade 1. If the patient cannot endure the nasal douche, he substitutes for it the local application of a large smooth pencil, moistened with a concentrated solution of hydrate of chloral.

Ramon de la Sota.

BROWNE, LENNOX (London).—**Adenoid Growths in the Naso-Pharynx.** *British Medical Journal*, September 1, 1888. (Paper read before the Annual Meeting of the British Medical Association, 1888.)

THE author has found these growths both with and without enlarged tonsils. The failure to cure deafness by tonsillotomy might be explained

by the frequent concurrence and overlooking of these growths. They did not appear so early in life as was generally supposed, but might be met with after twenty-one years. In cases of otorrhœa they ought to be looked for. They were best removed by the finger nail.

Hunter Mackenzie.

HILL, WILLIAM (London).—**The Rôle of the Pharyngeal Tonsil in Health and Disease.** *British Medical Journal*, September 1, 1888. (Paper read before the Annual Meeting of the British Medical Association, 1888.)

"THE function of the tonsil is analagous to that of an ordinary lymphatic gland, namely, the production of leucocytes for the blood. . .

"Although the bulk of the leucocytes passed into the blood, histological investigation showed that a pretty constant migration took place into the alimentary canal, and it was suggested that these migratory leucocytes, being strongly amylolytic, played some subsidiary part in the process of digestion." The acceptance of these views would explain why the mere surgical treatment of adenoid growths was so often unsatisfactory.

Hunter Mackenzie.

FALCÓ.—**Naso-Pharyngeal Fibrous Polypus: Extirpation and Cure.** *Revista de Medicina, Cirugía y Farmacia*, July, 1888.

A MAN, twenty-three years of age, was received into the hospital on account of a round, even, red, hard tumour, which had never caused bleeding, and which filled almost all the naso-pharyngeal cavity, and was attached to the internal surface of the left pterygoid process. The tumour was extracted, after cutting through the soft palate, and cutting the peduncle with the *écraseur* of Maisonneuve, without hæmorrhage. The weight of the tumour was 40 grams.

Ramon de la Sota.

MATHESON, FARQUHAR (London).—**Stammering or Stuttering, and Naso-Pharyngeal Disease.** *British Medical Journal*, September 1, 1888. (A paper read before the Otological Section, at the Annual Meeting of the British Medical Association, 1888.)

THE author's conclusions are :—“(1) That stammerers were, as a rule, of “a neurotic temperament ; (2) that one of the following conditions was a “constant factor in cases of stammering—namely, the enlargement of the “turbinate bones, adenoid vegetations in naso-pharynx, chronic rhinitis. “The spasmodic action of the muscles of the throat was due to reflex “action.”

Hunter Mackenzie.

LARYNX.

SREBRNY.—**Contribution to the Casuistics of Foreign Bodies in the Larynx.** *Gazeta Lekarska*, No. 38, 1888.

THIS was the case of a patient, seventeen years of age, who had aspired a grain of seed. Three months after this was seen to be lying transversely above the true vocal cords. All trials at extraction through the mouth having failed, it was finally extracted by tracheotomy, and the patient was rapidly cured.

Constantin Karwowski.

WAXHAM, F. E. (Chicago).—**Remarks on Intubation of the Larynx.** *British Medical Journal*, September 29, 1888.

A PAPER with illustrations descriptive of the operation, and concluding with a table comparing the results after tracheotomy, and after intubation. "It will thus be seen that intubation holds its own with tracheotomy at all ages, and with the young and feeble children it offers advantages far superior to tracheotomy."

Hunter Mackenzie.

HUTCHINSON, PROCTER S. (London).—**Acute Necrotic Perichondritis of the Larynx in a Pig.** *British Medical Journal*, September 22, 1888.

THE animal was a fat and otherwise healthy boar pig. "The case is very valuable as conclusive proof that such may take place quite independently of any specific influence. That the inflammation was catarrhal is perhaps most probable."

Hunter Mackenzie.

BASSOLS PRIM.—**On the Treatment of Laryngeal Phthisis.** *Revista de Laringologia, Otologia y Rinologia*, December, 1888.

THE author, considering the parasitic nature of the disease, claims that oxygen is indicated, either in inhalations or locally as oxygenated water. These operate upon the lesion through the intermedium of the blood; oxygenated water acts directly upon wounds. Inhalations of sulphurous acid have an indubitable action upon the tuberculous process, and upon the concurrent congestion.

Ramon de la Sota.

SOKOLOWSKI.—**The Cure and Local Treatment of Laryngeal Phthisis.** (Communication read at the Fifth Congress of Polish Physicians at Lemberg, 1888.) *Gazeta Lekarska*, No. 35, 1888.

THE author recorded observations and conclusions drawn from his private and hospital practice. He has seen many cases of spontaneous cure of phthisical ulceration of the larynx. In fifty cases of phthisical ulceration of the larynx which have been without local treatment, he has observed 16 per cent. of ameliorations, and of fifty cases locally treated, 80 per cent.

of ameliorations. The treatment consisted of the local application of lactic acid, iodol, cocaine, curetting, ablation of granulations by means of the forceps or galvano-cautery, scarifications, &c.

He has arrived at the following conclusions :—

1. The cure of laryngeal phthisis is possible, but rare ;
2. Cicatrisation, spontaneous, or produced by local treatment, always occurs with ameliorations of the general condition of the patient, and of the lungs ;
3. The best local treatment is a combination of methods, lactic acid, curetting, scarification, and galvano-cautery ;
4. It is absolutely essential that local treatment be accompanied with general treatment.

Constantin Karwowski.

PRZEDBORSKI.—Contribution to the Study of Hernias of the Ventricle of Morgagni. *Gazeta Lekarska*, Nos. 51 and 52, 1888.

A DESCRIPTION of two cases observed and cured by the author : one cured by cauterisation with chromic acid, the other in which the hernia was multiple, composed of several separate tumours, and which was cured by removal of these tumours by means of Fauvel's forceps. The first case was that of a lady phthisical, but quite well for three years. The second was that of a strong man who had abused alcoholic liquors, and the author gives a literary *résumé* of the subject, adding remarks upon etiology and treatment.

Constantin Karwowski.

SREBRNY.—Laryngitis Hæmorrhagica. *Gazeta Lekarska*, No. 38, 1888.

THIS is the history of a case of this disorder, in which a woman, aged thirty-eight, and otherwise quite well, complained for a week of pains in the throat, and hoarseness, and who expectorated clots of blood. The author found a catarrhal laryngitis with hæmorrhage from the larynx. Under astringent inhalations the patient was cured at the end of three days. The author finds that his case is analogous to those described by Strübing under the name of hæmorrhagic laryngitis.

Constantin Karwowski.

SOKOLOWSKI.—Idiopathic Phlegmonous Laryngitis or Laryngitis Submucosa. *Gazeta Lekarska*, November 21, 1888.

THIS is an excellent monograph based upon ancient and modern works, and on cases observed by the author. The laryngoscopical appearances at the commencement of the disease, sometimes simulate phthisis, especially in phthisical subjects, as the author has had occasion to observe. As to treatment the author recommends purgatives, ice, and local antiphlogistic measures by means of leeches and vesicatories. In cases where great œdema threatens, he employs scarifications of the affected parts. The author records a very detailed case, and gives the *résumé* of seven cases observed by him latterly, each offering some peculiarities.

Constantin Karwowski.

MALINOWSKI.—**Syphilitic Stenosis of the Larynx and Trachea in a Child three years of age.** *Gazeta Lekarska, November 28, 1888.*

STENOSIS of the larynx was diagnosed with the mirror in the case of a child born syphilitic, and who for four months suffered from dyspnea. During a very alarming attack tracheotomy was performed, but the trachea was of so small a diameter by reason of cicatrices, that the smallest cannula could not enter. The child died three hours after, and the autopsy confirmed the diagnosis.

Constantin Karwowski.

OLTUSZEWSKI.—**Contribution to the Diagnosis and Treatment of Syphilitic Affections of the Larynx.** *Gazeta Lekarska, Nos. 46 and 47, 1888.*

FOUNDING his conclusions upon original observations, the author divides syphilitic affections of the larynx into seven varieties :—(1) Flat condylomata ; (2) Infiltration and inflammation of the mucous and sub-mucous membranes of the larynx, with their results ; (3) Syphilitic ulcers ; (4) Cicatrices ; (5) Inflammation of the joints and cartilages of the larynx ; (6) Perichondritis ; (7) Paralyses.

The author has often seen flat condylomata on the posterior wall of the larynx, the epiglottis, and once on the true vocal cords. Infiltrations with their sequelæ, such as ulceration and cicatrices, he has observed on all parts of the larynx and epiglottis. Ulcers always possess a grey-yellow base, with irregular edges surrounded with a red zone. In doubtful cases anti-specific treatment will aid the diagnosis.

He has observed syphilitic ulcers in phthisical subjects, and has succeeded in obtaining their cicatrization and sometimes amelioration of the pulmonary condition. The author has seen syphilitic cicatrices on the ary-epiglottic ligaments, the epiglottis, and the true and false vocal cords. He has seen one curious case of ankylosis of the crico-arytenoid articulation, when the corresponding vocal cord was completely immovable. Mixed treatment, mercurial frictions, and iodide of potash cured this condition.

The author then relates a case of cancer of the larynx. The affection appeared in a man fifty-two years of age, who had had a chancre thirty-two years previously. The author and Dr. Heryng thought the case to be syphilitic, and treated it accordingly, without result. The patient who had suffered from his throat for two years, had coughed for six weeks, and expectorated sanguinolent sputum. On examination there was found, paralysis of the left half of the larynx, infiltration of the ary-epiglottic ligament, and the left arytenoid cartilage. On the left false cord was observed a vegetation which hid the entry of the larynx a little. There was inequality of the surface of the posterior wall. There was continuous pain and excessively disagreeable breath. There was also sub-maxillary adenopathy on the left side. After failure of the anti-syphilitic treatment Dr. Heryng removed a piece of the vegetation for microscopic examination, which proved it to be cancer.

According to the author, the treatment of syphilitic affections of the larynx should be general anti-specific treatment with local applications of a solution of corrosive sublimate.

Constantin Karwowski.

FRAENKEL, B. (Berlin).—**Laryngeal Cancer, its Diagnosis and Treatment.** *Deutsch Med. Wochenschr.*, 1889, Nos. 1, 2, 3, 4, 5, 6.

It is very desirable that laryngeal carcinoma should be diagnosed at an early period. The author, therefore, describes first the early form of this disease :—

(1.) *Carcinoma polypoides*.—Cancers of the vocal cords only have one subjective symptom such as other tumours, that is, hoarseness. Benign neoplasms are situated on the vocal cord, malignant growths perforate its tissue. The mobility of the vocal cord is not at first diminished. The circumference of the tumour is not inflamed. Sometimes the colour of the tumour is an opaque white. This colour is characteristic of cancer. Sometimes it is possible therefore to determine the cancer *prima vista*, but there are other cases in which it is absolutely impossible to differentiate them from other tumours, especially the papillomata and fibromata. There are also certainly intermediate forms between malignant and benign tumours. The microscopic examination may also lead to false conclusions, as well in their positive as in their negative relation, but in most cases it may give a determinate decision, so that it must be said that microscopical examination is of very great importance. Usually the cancer in these cases is carcinoma keratoides.

(2.) *Carcinoma diffusum*.—Sometimes the cancer does not manifest itself in the form of tumour, but in a diffused manner. These conditions are not easy to discriminate from other hypertrophies of the vocal cords. Microscopically the growth is usually carcinoma simplex. It is often very difficult to differentiate these forms from benign growths, such as pachydermia, tuberculosis, and syphilis. Important symptoms are the diminished mobility of the vocal band, and the unilateral localization of the process. The diminished mobility and the median position of the cord may be produced by disease of the crico-arytenoid joint, as well as by pressure on the recurrent nerve. But the author has sometimes seen this symptom in benign tumours. In some cases the diagnosis may be made by microscopical examination.

(3.) *Carcinoma, polypoides and diffusum, in other portions of the larynx*.—The cancer may originate in the ary-epiglottic folds, in the ventricles, or in the posterior laryngeal wall. Special mention must be made of the tumours arising from the inner surfaces of the arytenoid cartilages, and the processus vocalis. These forms may easily be thought to be pachydermia laryngis.

(4.) *Carcinoma ventricular*.—Sometimes the laryngoscope demonstrates only a protrusion of the ary-epiglottic folds. The tumour is covered by normal mucous membrane, and it is a carcinoma submucosum. Microscopically, this is usually a carcinoma fibrosum adenoides. It is rather easy to differentiate these forms from essential perichondritis, but it may be impossible to differentiate them by laryngoscopical examination from syphilitic gummata. An anti-syphilitic treatment and microscopical examination can only determine the diagnosis in these cases.

(5.) *Progressive forms of laryngeal carcinoma*.—Cancer has an inclination to progress along the pavement epithelium, and so arise the

circular forms. Larger tumours, producing stenosis and asphyxia, also occur, and the cancer often resembles the so-called cauliflower tumours. Sometimes the progress of the cancer is at intervals, which are in some cases regular. In a great many cases there is never any swelling of the glands of the neck; in other cases this swelling is the most remarkable symptom. When the tumours have been present a certain time, the second period of the disease begins, which is marked by ulceration. Neither this symptom, nor the pain irradiating into the ear, nor dysphagia, nor difficulties of swallowing, are characteristic of the disease. Other ulcerations may produce the same symptoms. But it must be remarked that there is a certain factor by which the diagnosis can be made by the nose of the observer. The differential diagnosis in such cases can often be determined by microscopical examination of particles of the growth, or of the sputum, and also by tentative use of potash iodide. In rare cases we find cicatrization of carcinomatous ulcers. The cartilages may at a later period be destroyed by the progress of the neoplasm or by perichondritis. From this inflammation an acute stenosis may be produced. A thickening of the cartilages may be produced, which can be felt in the neck. The whole tumour may perforate the cartilages, and so be felt through the skin. The death of the patient may be caused by asphyxia, by infection of the lungs, by collapse, or by accidental causes, such as hæmorrhage, pyæmia etc.

(6.) *Treatment.*—The neoplasm must be removed so long as it is a local disease. Some authors do not recommend this method, believing that all cases will be followed by recurrence, but it is to be hoped that the number of recurrences will be diminished by making early diagnosis. The author has attempted intra-laryngeal operation, and has had in one case a very excellent result. The tumour was diagnosed by Virchow to be carcinoma. The patient is now seventy-seven years of age, and has had no recurrence for four years (see the report in this Journal, 1887). The author has adopted the same method in five other cases:—(a) Removing a tumour as large as a bean in a patient fifty-seven years of age (carcinoma keratoides). He has not again seen the case. (b) Extirpation of a carcinoma of the left vocal cord in a patient sixty-seven years of age. One-and-a-half years later the tumour had not recurred. Two years after there was recurrence. A second intra-laryngeal extirpation was then performed. (c) Extirpation of a carcinoma from the right vocal cord. A year afterwards there was no recurrence. (d) Extirpation of a canceroidally degenerated left vocal cord. Six months after the operation there was no recurrence. (e) Carcinoma keratoides of the right vocal cord. The author tried intra-laryngeal extirpation, but without complete success. Therefore, laryngo-fissure was performed, with extirpation of the diseased vocal cord. Two months after there was no recurrence. Two cures in six cases are results sufficient to recommend the adoption of the endo-laryngeal operation in such cases as it has any chance of success. There can be no doubt that it is the less dangerous, and gives the best chances for preservation of the functions of the larynx. It is possible that benign tumours may degenerate and become malignant, but it is not at all to be believed that such metamorphoses are favoured by intra-laryngeal opera-

tions. In the cases in question this is of no importance, since cancers already exist. As to instruments, the cutting wire and the forceps are the best. If a recurrence follows the intra-laryngeal operation, a more extensive operation can at any time be performed. Laryngo-fissure is not a dangerous operation, and will give better results if it is performed early. It may also be performed in doubtful cases. If it is not possible to remove the cancer by this method, partial or total extirpation of the larynx must be performed. If great operations are not possible, it may sometimes be well to remove *per vias naturales*, or by thyrectomy, as much as possible of the growth for the relief of the patient. As a palliative measure in cases of dyspnœa, tracheotomy must be performed to avoid asphyxia. Deep tracheotomy is preferable, because the cancer often advances downwards, and a longer time occurs before it reaches the cannula. In the last stage of the disease only narcotics can give any relief. Michael.

STREITER (Würzburg). — **Ten Cases of Thyrotomy. Thyrotomy compared with other Methods of Treatment of the Larynx.**
Würzburg, Boegler, 125 pages with 2 tables.

AFTER giving a very good historical review of the subject, the author details ten cases operated upon by Professor Schonborn :—

1. Tuberculosis of the larynx. The case appeared to be carcinoma. Deep tracheotomy was performed. Trendelenburg's tampon cannula was used, and thyrotomy was performed, and the ulcers cauterised with Paquelin's cautery. Death occurred three weeks later from tuberculosis.

2. A patient, seventy years of age, had thyrotomy performed, after previous tracheotomy and application of Trendelenburg's cannula. Two months later, senile gangrene of the hand appeared, and death followed a year after.

3. A patient, forty-five years of age, had worn a cannula for two months, Hoarseness and increasing dyspnœa existed, dating from four years previously. Thyrotomy was performed, and a broad based tumour removed from the left vocal cord with scissors. Paquelin's cautery was also applied. A month afterwards the patient was cured, and now breathes with the mouth.

4. A patient, forty-three years of age, had papillomata with aphonia. Thyrotomy was performed. (Why?) Cure resulted.

5. A patient, forty-one years of age, had carcinoma of the larynx. Dyspnœa necessitated tracheotomy. Thyrotomy with cauterisation of the parts were afterwards performed. Six weeks later, the patient left the hospital in rather a bad state.

6. A patient, sixty-five years of age, had carcinoma of the larynx. Thyrotomy was performed, but the patient died from collapse.

7. A patient, forty-three years of age, presented concretions of the vocal cords. Tracheotomy was performed, and was followed by thyrotomy and removal of the granulations. Death occurred eight months later from pneumonia.

8. A case of tubercular laryngitis. Thyrotomy was performed, and the tubercular masses destroyed.

9. A case of tubercular laryngitis. Thyrotomy was performed, and the tubercular tumours cauterised, but death occurred eight days after.

10. A case of tubercular laryngitis. Tracheotomy was performed, which was followed by emphysema of the skin. Four weeks afterwards thyrotomy was performed, and the tubercular masses destroyed. Death occurred four weeks later.

After the relation of these cases, the author gives a monograph upon the operation and its indications. We may agree with him that prophylactic tracheotomy should always be performed, and that tamponning the trachea is necessary. Trendelenburg's tampon cannula is certainly the safest, if the material is good and is examined before using. The sponge cannula of Hahn is merely a filter, and in no sense a tampon. The sponge should only be used with a gutta-percha cover, as recommended by the reporter, and it is then absolutely safe. We may also agree with the method of operation, and with the use of Pacquelin's cautery. But we cannot at all agree with the opinions expressed by the author as to the indications for the operation of thyrotomy, and the absence of danger in every case. This view on the part of the author is the more curious, since he himself relates two cases in which death was hastened by the operation (cases 1 and 6), and it is certain that in two other cases (9 and 10) the result was same. The mortality from operation is 40 per cent. Of what use can thyrotomy be in cases of progressive tuberculosis? Temporary relief is afforded by tracheotomy, but not in the least by thyrotomy. As regards benign neoplasms, in all cases in which their removal could be effected *per vias naturales*, thyrotomy should not be attempted. If a physician is not able himself to perform these endo-laryngeal operations, he must send his patient to someone who can, and should not, as the author proposes to do, punish his patient with a sanguinary operation in consequence of his own disability. It is absolutely certain that damage to the voice results if the thyroid cartilage be divided. That has already been proved long ago by Krishaber and Jelenffy, both practically and theoretically. In most cases also, polypi do not cause complete aphonia, but merely hoarseness, and the latter is also the result of thyrotomy. According to the author's opinion, thyrotomy has scarcely any contra-indication in cases of ulceration or neoplasms of the larynx, but in modern laryngology this opinion can have no weight of authority. On the contrary, it must be admitted that thyrotomy is an operation dangerous to the voice, and sometimes to life. It is indicated in malignant neoplasms, if they can be totally eradicated in this manner, in benign neoplasms, if there is any real danger in their presence, sometimes in children, and if operation *per vias naturales* is impossible it is sometimes indicated in stenosis and perichondritis. As to the results recorded by the author, they prove that tuberculosis is a strong contra-indication to the operation.

Michael.

ARGUMOSA.—Foreign Body in the Trachea. *Archivos de Medicina y Cirugía de los Niños*, February, 1889.

IN the hospital of *Niño Jesus*. Argumosa performed tracheotomy in the case of a child in imminent danger of asphyxia, and was astonished to find

that suffocation occurred when the cannula was introduced, and disappeared when it was withdrawn. In one of these attempts a foreign body coming out of the trachea, during a vigorous expiration, was ejected to a great distance. It was the seed of a water-melon, which had been in the air passages for six months.

Ramon de la Sota.

NECK, THYROID, &c.

CHRÉTIEN.—Thyroidectomy. *Thèse, Paris, 1888.*

It is only since 1880 that French surgeons, following the practice of the Germans, have adopted thyroidectomy. In 1882 J. Reverdin discovered myxœdema, as a result of total extirpation, and surgeons adopted then partial extirpations.

In 1886 Socin devised, under the name of enucleation, or intra-glandular extirpation, a method already described by Porta, which consists in removing the tumour and leaving intact the thyroid parenchyma surrounding it. Whilst total extirpation should be reserved almost exclusively for malignant tumours, partial hypertrophies, cysts, circumscribed adenomatous goitres are best treated with partial extirpation, and especially with intra-glandular enucleation.

Besides the accidents common to all wounds, thyroidectomy is sometimes followed by modification of the voice, more or less permanent. It is complicated also in women, with tetany, hysteria, and cerebral affections.

Joal.

DROBINCK.—Experimental Researches upon the Consequences of Extirpation of the Thyroid Gland. *Archiv für Experimentelle Pathologie und Pharmakologie, Band 25, Heft 2.*

FROM experiments made upon eight dogs, the author has arrived at the result that symptoms are produced by irritation of the nerves during healing, especially during purulation. With Münk he believes that the presence of the gland is not of vital importance.

Michael.

MÜNK.—Further Researches upon the Thyroid Gland. *Sitzungsberichte der Königlich preussischen Academie der Wissenschaften, Berlin, 1888.*

THE author believes that the symptoms occurring after extirpation of the thyroid gland are caused by irritation of the nerves, and that they have no relation to the absence of the gland. In his experiments upon animals, symptoms always occurred during the treatment of the wound, but disappeared after its cure. The same symptoms could also be produced by

irritation of the tissue round the gland by means of croton oil, even without extirpation of the gland. If in some cases symptoms occur long after extirpation, this must be explained by cicatricial irritation of the nerves.

Michael.

KOCHER.—Report upon 250 Extirpations for Goitre. *A.K. Gesellsch. der Aerzte in Wien*, February 8, 1889.

THE author draws the following conclusions:—

1. Extirpation is indicated in malignant goitres, inflammation of the thyroid and diffuse hypertrophies. It is contra-indicated if there is no healthy tissue ;
2. Enucleation is indicated in cystic goitres ;
3. Evacuation is indicated if there are isolated soft tumours ;
4. In some cases extirpation must be performed by resection of the tumour ;
5. Ligature of the thyroid gland is indicated in vascular goitres and Graves' disease.

Michael.

BOSE (Grissen).—Artificial Anæmia during Operations upon the Thyroid Gland. *Centralblatt für Chirurgie*, No. 1, 1889.

THE author operates so as to completely liberate the gland, so that it can be raised from the wound ; he then places an elastic ligature round the gland before opening the capsule and removing the contents.

Michael.

ARMSTRONG.—Fibroid Tumour of the Thyroid. *Montreal Medico-Chirurgical Society*, November 16, 1888.

Dr. ARMSTRONG presented the enlarged right lobe which he had removed ten days previously from the neck of a boy aged three-and-a-half years. The growth had been slow until within six weeks of removal, when it rapidly developed to the size of an orange. The growth was shelled out, each vessel being tied twice before division. A microscopic section showed the growth to be of the nature of a hypertrophy.

George W. Major.

ARMSTRONG.—Exophthalmic Goitre. *Montreal Medico-Chirurgical Society* November 16, 1888.

Dr. ARMSTRONG presented a young woman aged twenty-four, suffering from Basedow's disease.

Prominence of eyeballs, a rapid pulse (136), and distinct enlargement of both lobes of the thyroid gland were observed. Any exertion caused great dyspnœa. Under constitutional treatment and galvanism of the sympathetic, temporary improvement followed.

Dr. Major noticed the frequency with which nasal and naso-pharyngeal disturbances precede exophthalmic goitre.

George W. Major.

LEWIS, CHRISTOPHER (Birmingham).—A case of Deep Cellulitis of the Neck with Partial Paralysis of Right Arm, following Acute Otitis Media, caused by a Blow. *British Medical Journal*, September 1, 1888.

THIS paper, which is mainly of otological interest, was read before the Annual Meeting of the British Medical Association, 1888.

Hunter Mackenzie.

NEW PREPARATIONS.

Jeyes' Surgical Soap.

SOME little time ago we had the opportunity of testing the antiseptic preparations of this firm, the basis of which is creolin. Creolin has obtained the reputation, founded on strictly conducted scientific experiments, of being at once one of the very cheapest, most harmless, and efficient of antiseptic bodies. We are, therefore, pleased to find that Messrs. Jeyes have added to their preparations antiseptic soaps, which cannot fail to be valuable, both to the surgeon and for toilet purposes. Both fulfil their purpose admirably, and the latter are especially elegant preparations.

Van Houten's Cocoa.

WE have received samples of this cocoa. It scarcely needs recommendation from us, as it has already been before the public for a long time, and has acquired a pre-eminent place in both medical and public favour. We are pleased to state in public the opinion we have long ago formed in private, that Van Houten's Cocoa is fully deserving of the high favour it has obtained for itself, both amongst the general public and with the medical fraternity.

The "Pinol-Eucalyptia" Dry Inhaler.



THIS ingenious little instrument, patented by Mr. Loxton, has been introduced by Messrs. Burroughes and Wellcome. It is a most portable, simple, and efficient instrument, obviating many of the difficulties experienced in giving dry inhalations. As will be seen from the illustration it consists essentially of a glass tube, filled with pine chips, which can be moistened with pinol eucalyptum, terebene, or any of the oils used for inhalation. One end is shaped into a mouth-piece, and can be conveniently held for any length of time between the lips. The patient is

thus enabled to get the benefit of continuous dry inhalation, without the necessity of wearing a hideous-looking instrument for the purpose. When not in use it can be conveniently carried in the waistcoat pocket.

NOTES.

BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION.—A well-attended meeting of this Association was held at the Langham Hotel, on Wednesday, March 27th. We are unavoidably compelled to hold over the full report of the meeting until the next number of this Journal.

WE have the pleasure to announce that Dr. BRYSON DELAVAN, of New York, and Dr. W. H. PORTER, of St. Louis, will in future contribute the American Reports (along with Dr. J. N. MACKENZIE) to this Journal.

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NOTES ON THE CHOICE OF ANÆSTHETICS
IN NASO-PHARYNGEAL OPERATIONS.

BY J. FREDK. W. SILK, M.D. (Lond.),

Anæsthetist to the Great Northern Central Hospital, and to the National Dental Hospital, etc., etc.

AS it has fallen to my lot to administer anæsthetics in a large number of cases in which the post-nasal space has been the region involved in the operation, it has been suggested that my experience in the matter might be of service to others. The following notes are an outcome of this suggestion, and are put forward in the hope of conducing to a more careful study of the subject.

Dealing with the principal anæsthetics *seriatim*, I propose to point out their relative advantages and disadvantages in reference to this particular class of operations.

Of *local anæsthetics* I have had but little personal experience, and such as I have had has led me to conclude that, even when the use of *cocaine* is possible, its action is very uncertain, and I am confirmed in this opinion by the views, often contradictory, expressed by surgeons who have employed it. These conflicting opinions are, no doubt, due in great measure to the practical impossibility of injecting the drug at or over the seat of operation. Although mere external applications avoid the serious depression which sometimes follows its hypodermic use, this gain is more than counter-balanced by the uncertainty and incompleteness of its action. Add to this the fact that a very large proportion of our patients are either children or nervous women, in whom the dread of the operation, and the sight of the instruments and blood, are even greater disturbing elements than the actual pain, and I think there can be little doubt that the sphere of cocaine is strictly limited, and will possibly become even more so when the present "fashion" dies out.

Nitrous oxide.—The more I see of this agent the more convinced I feel that its use in general surgery is capable of great extension. It is at once pleasant, certain, and safe, and can be administered in any position of the patient. The anæsthesia produced by its use is absolute, no previous preparation is necessary, the recovery is rapid and perfect, and the after effects practically *nil*. The great disadvantage under which it labours is that its effects are very transient, and, owing to the fact that, to be of any service, it must be inhaled pure and absolutely undiluted with air, it is difficult, if not impossible, to maintain the narcosis, especially in naso-pharyngeal operations.

Some uncertainty, too, prevails as to what can really be done, even in the short period of primary anæsthesia at the disposal of the surgeon, when nitrous oxide is used. This period is said to average about thirty-six seconds; but, instead of speaking of a definite time, I am in the habit of pointing out that dentists, who have almost a monopoly in the use of the gas, often find the duration of anæsthesia sufficient to permit of the extraction of three or more teeth, and that there must be many operations in general and special surgery which could be easily performed in a similar period. In general surgery it is, of course, possible, though difficult, to maintain the narcosis for considerable periods by alternate removals and rapid re-applications of the face-piece,¹ but this is hardly practicable in the special operations we are discussing. The duration of primary anæsthesia may, however, even in these cases, be considerably prolonged by the judicious use of a very small quantity of ether, and this without materially interfering with the other advantageous properties to which I have referred.

My own experience, as far as operations coming within the sphere of throat surgery is concerned, is limited to tonsillotomies, and a case of exostosis of the septum-nasi, but in all these cases the gas was in every way satisfactory.

Ether.—I have alluded to the use of ether as an adjunct in the production of anæsthesia by nitrous oxide. It may, of course, be given alone from the first, but, by preference, its use should be preceded by a fairly full dose of gas (the so-called combined method), this admixture having the advantage of hastening the development of the anæsthesia, abolishing completely (if properly carried out) the stage of excitement, diminishing the bronchial irritation, and, in short operations, of lessening the tendency to sickness and unpleasant after effects.

The advantages claimed for the use of ether, in these particular operations, are, that next to nitrous oxide it is the safest anæsthetic we have, sufficiently profound anæsthesia is produced and maintained, and that recovery is, on the whole, rapid. Its relative safety, as far as naso-pharyngeal operations are concerned, at any rate, is, I believe, due to the fact that its vapour is very diffusible. This is a point of supreme importance when accumulations of blood and

¹ An eminent authority upon the subject of anæsthetics says that this prolongation has been extended to upwards of 20 m.

mucus at the back of the throat, and in the larynx, are liable to occur, leading as they do to diminution of both inspiratory and expiratory function. The extreme diffusibility of ether obviates, to a great extent, any danger that may arise on this account, for even with diminished expiration the vapour does not so readily collect in a concentrated form in the lungs as is the case with chloroform.

Further, Paul Bert has drawn attention to the fact,¹ that during the administration of any anæsthetic there is a stage of comparative safety, bounded on the one hand by the quantity of the drug necessary to produce narcosis, and on the other by the amount required to cause death; to this period he has applied the term "zone maniable," and it is worthy of note that with ether this zone is comparatively broad. This practically means that the border-land between profound narcosis and death is not very sharply defined, but allows considerable margin for accidents of over free administration or accumulation. In respect to the after effects of ether, I am inclined to agree with Dr. Dumont,² who thinks that although the immediate results of inhalation may be unpleasant, it is seldom that they are of any duration. Finally, ether may be administered with the patient semi-recumbent or even erect.

Against these obvious advantages we must place the following so-called disadvantages, viz. :—

1. That in children and old people it is liable to produce an undue amount of spasm, and almost invariably leads to considerable bronchial irritation. The importance, and much more the frequency of these occurrences, is, I venture to think, considerably over-estimated; among my recorded cases I find seven between six and eight years, and seven between nine and eleven, in none of which was any real difficulty experienced either in respect to spasm or cough.

2. That the hæmorrhage and mucous secretions are increased. In respect to the latter this is probably correct, but I doubt very much whether the increased hæmorrhage can be proved, nor even, if true, is the objection of any great importance, for with no known agent is the bleeding anything but free; it is, after all, merely a question of a slight increase, and I have seen no case in which absolute danger from such increased hæmorrhage has arisen.

3. That by increasing the turgescence of the vessels the mucous membranes of the nose, the soft tissues of the throat, the tongue, etc., become swollen and more liable to block the air passages. This may be, and is probably true; inasmuch, however, as the mouth is usually held widely distended with a gag, and the parts in question are within easy reach, the objection on this score practically falls to the ground; even if this were not the case, any difficulty likely to be caused by this turgescence is capable of easy correction, provided we bear in mind the possibility of its becoming a source of trouble.

4. That the use of ether is forbidden in the neighbourhood of the cautery. This is the general teaching, and on theoretical

¹ *Comptes Rendus Académie des Sciences*, November 14, 1881.

² *Correspondenz-Blatt für Schweiz. Aerzte*, 1888.

grounds I am disposed to admit the possibility of accidents occurring under these circumstances ; but I should like very much to hear of some experimental observations upon igniting or exploding ether vapour, in various degrees of tenuity and dilution, by means of the much used galvano-cautery.

On the whole, therefore, I am inclined to think that the objections to ether are not of such great weight, or of such importance, as to warrant us in disregarding its obvious and great advantages.

Chloroform.—For some reason which is not at once apparent, chloroform has long been almost the routine anæsthetic in naso-pharyngeal operations. I believe myself that such use is founded upon the assumption that it is safest for children—a general proposition with which I in no way agree, and from which I fancy its use has extended to adults. Other advantages claimed for it in these operations are :—

1. That it is simple to administer, and the resulting narcosis is easily maintained. It does not come within the scope of this communication to point out that these advantages are much exaggerated, but even if this were not the case, I hardly think that the convenience of the operator should be placed above the safety of the patient.

2. That the bleeding and turgescence of the mucous membrane is less than when ether is used, but even if this were true, the difference, as I have already pointed out, is so slight, that this advantage almost sinks into insignificance.

3. That the primary narcosis is more profound. This should, I think, be classed rather as a disadvantage, inasmuch as the zone maniable to which I have already referred, is, in respect to chloroform, very narrow, and, therefore, even if no respiratory embarrassment prevailed, its use is always attended with a certain amount of risk : much more is this the case when the comparatively pure vapour which accumulates at the back of the throat may be inhaled at any time, and is quite beyond our control.

These, as far as I know, are the only advantages which, even indirectly, can be said to have any bearing on the special cases we are considering. The objections to its use, if not numerous, are weighty :—

1. I can fully endorse the view that chloroform administrations are always a source of anxiety to the anæsthetist, and, in some instances of “narrow escapes” to the patients, and this is much more the case in naso-pharyngeal operations. On account of the accumulation of blood at the back of the throat, and consequent interference with the respiratory functions, the heavy chloroform vapour speedily collects above the larynx in a nearly pure or highly concentrated state. Hence the attacks of syncope and apnœa which so commonly occur, without the slightest warning, when chloroform is being administered. Its slight diffusibility, too, tends to permit of its accumulation in the lungs, and is accentuated by the respiratory failure. Hence the attacks of syncope and apnœa occurring, as they frequently do, some time *after* the administration has been withdrawn.

2. The after effects of chloroform are often very prolonged. Such immediate effects as sickness, the result of the blood swallowed, are probably no better and no worse than those attendant upon the administration of ether, but profound prostration and digestive disturbance are said to continue for days.

3. Its administration in any but the absolutely recumbent position is quite inadmissible.

Mixtures.—In this country much faith is placed in such mixtures as the A. C. E., or in others containing more or less chloroform. For reasons which are hardly necessary for me to discuss here, I incline to the opinion that, as the strength of a chain is measured by its weakest link, so the safety of any anæsthetic mixture must be determined by its most dangerous component. When, therefore, mixtures of this description are used, I believe that the same objections to their use arise as with chloroform alone.

Where for any reason primary narcosis has been induced by chloroform, I am in the habit of substituting—very early—ether, administered by the same method as adopted for the former, *i.e.*, Skinner's cage or lint. I have seldom, if ever, found this to fail, and should certainly not care to maintain narcosis with chloroform alone for any prolonged period without some similar arrangement.

Summary.—The conclusions to which my own experience leads me are, then, as follows :—

1. That the possibility of using nitrous oxide should always be considered in naso-pharyngeal operations of short duration.

2. Failing this, the advantages and disadvantages of ether, and by preference, of the combined method, should be carefully weighed before deciding the question.

3. That chloroform, though so frequently used, has, over and above the objections made to it upon general grounds, drawbacks special to these particular operations, and when employed its use should, especially in prolonged operations, be limited to the primary induction of narcosis, substituting ether at as early a stage as possible.

REPORTS OF SOCIETIES.

The British Laryngological and Rhinological Association.

THE third meeting of this Association was held on Wednesday, the 27th March, at the Langham Hotel. At both the afternoon and the evening sessions the chair was taken by the President, Sir Morell Mackenzie. The members and others present were :—Messrs. H. L. Armstrong, U.S.A.; Lennox Browne; Geo. Stoker; John Macgregor; Chas. Warden; Vernon Hodson; Gordon Holmes; H. S. Bertell; Mc K. Butler; M. W. Frederick; J. W. Mathieson; K. M. Mackenzie; J. Dunbar; J. H. Nicols; Dundas Grant; Walter Foakes; J. W.

Thorburn; Chas. Frere; Wm. Gillespie; Walter Fowler; C. M. Campbell; F. Jessett; J. M. Hunt (Liverpool); Arthur W. Orwin; J. M. Bond; Dennis Vinrace; Perceval Whitcomb; J. S. Grubb; E. J. Gibson Berkeley; J. Taylor Parkinson (South Australia); B. Howard; Percy Jakins; T. W. Carmalt Jones; P. Coote (Quebec); Greville Macdonald; Thad. S. Up de Graff (New York); and M. K. Millican.

ELECTION OF FELLOWS.

The following gentlemen were elected Fellows: Dr. W. Cairns Wicks (Newcastle-on-Tyne); Dr. Gillespie (Perth); Dr. R. H. Coall (London); Dr. Ch. H. K. Brown (London). The following were elected Honorary Fellows: Professor Voltolini (Breslau); Professor Massei (Naples); Dr. Chas. Fauvel (Paris); Dr. Solis-Cohen (Philadelphia).

It was resolved that the Association should meet four times each year, one of such meetings to take place in any town nominated by the President, the remaining three being in London.

A Paper was then read on—

THE RELATIVE MERITS OF EARLY AND LATE TRACHEOTOMY IN CHRONIC DISEASES OF THE LARYNX.

BY MR. LENNOX BROWNE.

(*This paper was published in full in the April number of this Journal, at p. 131.*)

DISCUSSION.

Dr. DUNDAS GRANT: No doubt it would add very much to the interest of any remarks that I may have to make if I differ extensively from the propositions laid down by Mr. Lennox Browne in his interesting paper. So far as he has gone, there is very little which I feel the slightest temptation to differ from. At the same time I am, perhaps, not quite so firm in my convictions as Mr. Lennox Browne sometimes is, and I think it occasionally well that it should be so. I do not think I shall commit myself so far as Mr. Lennox Browne seems to, to too great delay with regard to the performance of tracheotomy in cases of paralysis of the abductors. I think that we should be very cautious about accepting any views in regard to delay in performing tracheotomy in paralysis of the abductors. That is, perhaps, the one disease *par excellence* in which I should be disposed to say that delay was dangerous. At the same time I am bound to admit that I have seen several cases in which patience was certainly rewarded.

A difficulty arises in this case as to whether we are dealing purely with a paralytic affection, and whether we are always quite able to exclude other trouble in the purely neurotic cases. I feel sure that rashness, if I may so call it, in operating is less dangerous than excess of caution. Of course, to use the word excess is begging the question, but I mean any delay on account of hopes that one may have of recovery by means of therapeutic treatment of some kind or other. But I think in this, one is to be guided very much by the condition of the lungs. Certainly, as soon as one finds that there is any tendency to engorgement of the lungs, then at once the operation should be performed, without spending time in steaming and poulticing, and all the other forms of treatment—bleeding, cutting, and so forth—that might be adopted for a case of pulmonary congestion from any other cause. I have two or three times seen the most remarkable improvement in the pulmonary condition—and I am quite sure this is a circumstance which is familiar to many of those present—following the performance of tracheotomy. One notable case, which I am sorry I did not go over in my mind before coming here, was a case following diphtheria. When I saw the patient there was a stertorous

breathing and inability to swallow, and, on using the laryngoscope, I saw exactly the clinical appearance of the paralysis of the abductors. The patient was in the greatest possible distress in order to get her breath. Her chest all over gave one evidence of marked engorgement, both of the larger and of the smaller bronchial tubes, and, in point of fact, the patient was rapidly dying. In this case there was absolutely no question of inflammatory condition in the neighbourhood of the larynx. All that had passed away; the larynx was perfectly whole and in every respect normal, the only thing being that the vocal cords were approximated, and during inspiration there was a tendency of the vocal cords to approximate closer rather than to separate. She was unable to swallow. I did tracheotomy for her without any difficulty whatever, and almost at once the patient became easy—her breathing was easy, and the moist sounds in the chest disappeared from that moment. I gave her food by means of a stomach tube, and left her lying comfortably, fanning herself. I mention this case, not as a case of very remarkable cure, because I am sorry to say that the patient died the next day, apparently from paralysis extending to the heart. However, all I have to say is this—that the disappearance of the pulmonary trouble as soon as tracheotomy was performed, was a thing that admitted of only one construction, namely, that the mechanical removal of the difficulty in a case of paralysis of the abductors is a thing which must be obtained with as little delay as possible. We know that when the thoracic wall is expanded, something must go into the chest, and under normal circumstances we know that air goes in and some blood as well, but when there is this obstruction and the air cannot go in, something else must—blood does—and we know how very soon when that obstruction gets to a certain stage there is the melancholy and hopeless termination which one must keep before one's mind.

Although I am sure that it is not without a great amount of consideration and very considerable experience that Mr. Lennox Browne has come to the opinion that he has formed, I would say that for less experienced persons, and for those who do not feel confident in their laryngoscopic powers of diagnosis, there is greater safety in tracheotomy rather than in the hopeful plan of masterly inactivity. As regards phthisis, I am bound to say that my evidence is not personal, and, being hearsay, it would not be admissible in a court of justice—but the next thing to bringing forward one's own evidence is to bring forward the evidence of other people whom we know and can trust. A fellow member of this association, Dr. Hunter Mackenzie, last year quoted several cases which will go very strongly to support the idea that benefit may result from tracheotomy. He cited to us cases where he was led to perform the operation from the occurrence of dyspnoea, and was very much astonished at the improvement which took place, so that although I am certainly influenced a great deal in this respect by the opinion of our respected colleague, Mr. Lennox Browne, at the same time I would certainly keep my mind open, and, if a case offered itself where I felt at all justified, I should certainly not hesitate to perform tracheotomy. Then we have the case of malignant disease. There I agree very strongly with Mr. Lennox Browne, and I am sure we all do. I might refer you to a very interesting case in my own practice, a case with all the signs and symptoms of laryngeal epithelioma, in which I did tracheotomy thirty-two months ago. I may say that dyspnoea was coming on, and there was no question of the operation of tracheotomy—it was inevitable. I am sure that anybody who did tracheotomy at all, would have done it in this case. The dyspnoea seemed to be threatening the patient's life. When I did the operation, she began to improve at once, that is to say that her breath got perfectly comfortable, and the appearance of the larynx actually seemed to improve; and, strangest of all, she underwent a decided increase in weight and improvement in general condition. In point of

fact, if one had not felt very strongly that one was right in one's view, one would almost have felt inclined to doubt whether it was a case of epithelioma at all. She has been under observation off and on now all this time, and within the last six or eight months there are evidences that there was no mistaking the diagnosis so far as that could be considered possible, because she is beginning to lose weight very considerably: for there is a great deal of pain, difficulty in swallowing, and a pretty extensive involvement of the glands of the neck. But the case is an interesting one, as showing what benefits may accrue from the performance of tracheotomy; though no doubt there are so many different types of cases, that one is not to be taken as a rule. However, that is typical of several cases that I have had under my observation, where the operation has been done and very great benefit, and apparently prolongation of life, has resulted. There was a case I had recently of a little child, an infant almost, about two years old, where there had been dyspnoea and stertorous breathing constantly coming on, because, for several months, the child had been fetched away and was altogether getting into a poor way with coughing and serious bronchitis continually, and with obviously some laryngeal obstruction. Now, although we do occasionally get a good view of the infantile larynx, we know that we often form a diagnosis on such cases with a very slight amount of objective confirmation. In this case I could see that there was thickening of the ventricular bands. The question in my mind was not so much whether tracheotomy ought to be done in this case as whether there was any probability of tracheotomy doing any good, which one would wish or expect, that is to say, if the obstruction was in the larynx alone. In order to solve this, I bethought me of adopting the plan of intubation. I put in an intubation tube, and there was an immediate and astonishing improvement in the breathing, in the general condition and in the condition of the chest, which now became practically normal. This showed me the use of intubation as a diagnostic method in ascertaining that the obstruction was in the larynx alone. After four days I took the tube out, hoping that things might have improved, and that I should not have to put it back again, but as soon as I took it out, the child was in great discomfort at once. I replaced the tube, but, unfortunately, in replacing it the second time it did not seem to give such happiness to the boy as on the first occasion, as the breathing continued troublesome, and the child succeeded somehow or other in coughing out this heavy metal tube. Then tracheotomy was done, and the child is in every respect now well and perfectly happy with the tube. These I have ventured to bring forward as illustrative cases; I did not come prepared to take a systematic part in the discussion, but, having been called upon, I have ventured to put before you, in a somewhat disjointed way, I am afraid, what occurred to me at the moment.

Dr. HUNT (Liverpool): With regard to the performance of tracheotomy in chronic diseases of the larynx, I cannot claim any very great experience. Not holding any hospital appointment, I have not had the opportunity of seeing the cases generally to the end, and very often they have gone out of my hands and passed into the hands of the general surgeon, so that my experience has been rather in watching results as attained by others than in being able to carry out the cases to the end myself. However, I have seen a fair number of cases representing chronic disease in the larynx, and I find my opinions coincide very closely with those of Mr. Lennox Browne. With regard to the treatment of laryngeal phthisis, I have never seen personally a case in which tracheotomy has been performed, nor have I seen a case in which tracheotomy was necessary. Some time in last year I read a paper at the Medical Society of Liverpool on the subject of the treatment of laryngeal phthisis, and, referring to tracheotomy, I thought I would take the opinion of the general surgeons there who were likely to have some experience in

this matter, and I asked them if any gentleman present had ever performed tracheotomy in a case of laryngeal phthisis. As far as I could gather, no one had. Mr. Rushton Parker, who responded to my invitation for some remarks from the general surgeons, said that he had only been once called upon to perform tracheotomy in a case of laryngeal phthisis. He had been called by a physician in the City, and, when he arrived, he found his patient practically dying, and he said he was very glad to get out of the room without doing anything, and that was the only time he had been asked to perform tracheotomy in a case of laryngeal phthisis. I am not prepared to speak so dogmatically as I thought Mr. Browne did with regard to the nature of tracheotomy. If one looks at the papers of Dr. Schmidt, of Frankfurt, one is struck by the marvellous results which he obtained by tracheotomy. Of course we all read very wonderful things in print, but, still, his testimony has been supported by that of other observers; and I think we have no right to speak too decidedly with regard to the value of tracheotomy in laryngeal phthisis till we have employed it. The real difficulty is to find a practitioner who has courage to employ it. As far as I know, very few practitioners see laryngeal phthisis in this country, and, in the case of a patient who has extensive laryngeal disease and phthisical disease, with comparatively little or no affection of the lungs, very few men venture to suggest to their friends the desirability of performing tracheotomy with a view to preventing the spread of the disease. Now that is certainly what has been done by Dr. Schmidt. He has performed tracheotomy repeatedly—I myself know of some eight cases which he has recorded—at a comparatively early stage, not for difficulty in breathing, or not for any great difficulty of breathing, but really as a means of curing the laryngeal disease. This he attained in a considerable number of these cases, and, what is still more remarkable—so very remarkable that one would like to see the cases—is that he says, in at least two of these, the healing or arrest of the disease in the lungs followed as well. Of course, how it accomplished that no one can conceive; it needs personal observation. As Mr. Lennox Browne has very clearly pointed out in his work on diseases of the larynx, and referred to again to-day, it is very seldom indeed that lupus disease affects the lower parts of the larynx; it attacks the upper quarter, and seldom extends to the interior or the lower part of the larynx. The true cords, in fact, remain almost entirely unaffected.

It must be extremely rare indeed, because I remember looking up this question some months ago in a work of Professor Schroetter's, which is at present appearing. He says that he has never seen a case in which tracheotomy was required in lupus diseases of the larynx; so it must be very rare, because we all very well know that there is a very large amount of lupus seen in the general hospitals and the other hospitals of Vienna, and yet Prof. Schroetter tells us that he has never seen a case which required tracheotomy. But I remember a case of Dr. Grant's, referred to in a paper of the *Edinburgh Journal* two years ago, where tracheotomy was necessary, and he found as a result, he says, that the spread of lupus in the larynx was arrested. Of course, that appears to us rather doubtful. As I have already said, it is seldom that lupus does attack the true cords, and to say that lupus is arrested in its downward extension by tracheotomy would be perhaps rather difficult to prove; and, moreover, how that case has gone on since then I do not know.

Coming now to the question of syphilis, I find myself entirely at one with Mr. Lennox Browne with regard to this. I think that we should not be in a hurry to perform tracheotomy in such cases. Two cases came under my own care and observation about a year ago, and they happened to come both at the same time, which illustrated this point very well. One was a woman

suffering from acute cedema. I twice saw her within the course of six weeks; both times she was suffering from very severe dyspnoea—indeed, she appeared to be dying. I said that nothing would save her but tracheotomy, and on both occasions I suggested its performance, and said it was the only hope for her. On both occasions she positively refused to have anything done; she would not allow any scarification of the cedema; would not allow tracheotomy; would not allow any instrument to come near her beyond the laryngoscope. Accordingly, I put her on iodide, and gave her inhalations of benzoin, and applied ice externally, and on that occasion she recovered.

Very shortly afterwards I saw the second case. There was urgent dyspnoea of the same kind. I did not see her at the time when the surgeon in charge of the case performed tracheotomy, but he asked me to see it a month or six weeks afterwards, to decide whether the tube might be removed. I examined it, and practically found nothing beyond a general thickening of the larynx; so that evidently the cause of the dyspnoea had been cedema. That woman a fortnight after I saw her (that was some six weeks after the tracheotomy had been performed) died from general bronchitis.

I have been very much struck indeed by the recovery of these women on the two occasions when I had insisted that some operative interference was absolutely necessary. Then with regard to cancer, I entirely agree with the remarks of Mr. Lennox Browne—that is, in favour of an early operation. I am sorry to say that so far I have not any remarkable cases such as Dr. Dundas Grant has referred to—that is to say, that I have not had a patient who has lived thirty-two months after the performance of tracheotomy; but that patients have improved, that the disease has not progressed so rapidly as before tracheotomy, I am convinced. It has done a great deal of good, and I think that it should be done unhesitatingly in cases of malignant disease of the larynx. With regard to another point, that of dilatation in stenosis of the larynx, all I have seen of it is this: I had an opportunity some six or eight months ago of watching some cases under the treatment of Prof. Schroetter of dilatation, both without and with tracheotomy. I certainly think that there was no doubt at all with regard to the good results that were obtained in some of those cases, even without the performance of tracheotomy.

Dr. MACINTYRE (Glasgow): There are so many points of interest in Mr. Lennox Browne's paper that it is difficult to take them up as one would like without consideration; but I would like to make one or two observations about tracheotomy in cases of tuberculosis. I have performed tracheotomy in tuberculosis and laryngeal diseases, where the operation was necessary owing to the dyspnoea. I must say, speaking for the school with which I have been most associated—namely, the West of Scotland—the general practice has been to wait until the dyspnoea was urgent before anything was done. However, as Dr. Dundas Grant has pointed out, one should keep one's mind open to changes in practice, and, therefore, any exchange of experiences of this kind must prove valuable. It is to be noticed that in tuberculosis and in other conditions there is liability from this operation of disturbance of the trachea and the bronchi beyond. Speaking from experience of many cases, my conclusion is that we cannot open the trachea in such cases without a considerable amount of danger to the trachea and the passages beyond. My experience of one case in which I operated, showed me from the subsequent course of the case, that there was still dyspnoea originating in the trachea and in the bronchi after the operation. So that I think that, if we are to consider the value of this treatment at all, we must take into consideration the fact that, while we may be giving the larynx a considerable amount of rest, we may, at the same time, be

causing a good deal of disturbance in parts beyond. That is a point not to be overlooked. In watching such cases I have tried the intra-laryngeal method suggested at the last meeting with considerable success, and, so far as I know from practice in the West of Scotland, it may be stated in this way—that, while we are called upon to do tracheotomy, if dyspnoea should be absolutely urgent, on the whole we prefer to try the intra-laryngeal cure before performing the operation of tracheotomy. There was one point in the paper with which I was very much struck, and that was the reference in syphilitic cases to the operation being performed subsequently to oedema. I may say that in Glasgow, ever since the teaching of my late respected chief, Dr. Foulis, we have paid less attention to the high or low operations in consideration of the part outside the trachea than we do to the question what is to be done inside the respiratory tracts; that is to say, instead of considering very much whether the operation should be done high or low, we rather think of whether we have anything to do after tracheotomy inside the tube itself. I think in cases of stenosis, if we consider the difficulty of dilatation and the possibility of an awkward cutting, it is desirable that the operation should be performed as high up as possible. Acting on that principle, I have tried in the cases in which I was forced to do it at all, to keep the incision into the respiratory passages as near the larynx as possible. But this is always done with a considerable amount of danger. In one case in which I performed tracheotomy about three or four days ago, I had no time to make a laryngeal or any other examination. It was a case in one of the hospital wards in an extreme condition of dyspnoea, and there was not time for much consideration. I made incision, acting upon this principle, very near to the larynx, and I was very much disgusted to find that no air was admitted. I immediately inserted my finger—for the patient had stopped breathing—and I found that I had gone right into the trachea. I made a second incision lower down the trachea, and air was got in quite easily, and in about ten minutes the patient recovered, and is now doing tolerably well. No doubt this experience shows the great desirability of thorough laryngeal examination, but we know that we can do the operation sometimes, even although there is no scrutiny with the laryngoscope.

Passing for a moment to the consideration of tracheotomy versus extirpation, I think that at the present day there is no rule (so far at any rate as the West of Scotland knows it) which will apply to all cases, that is to say to exclude extirpation, whether partial or complete, altogether, would be, I believe, a mistake; but on the whole I think that our experience is in favour of performing tracheotomy as opposed to the other method. One case which has occurred in my own practice was that of a man who was sent to me who had a tumour in his larynx. This tumour had been diagnosed by his physician something like four months before he saw me. On examination I saw a distinct neoplasm, but, in addition to that, there was a considerable amount of mucus, more particularly on the side which was affected by the tumour. The man had also a slight enlargement of the glands on the side of the neck corresponding to the side of the tumour. On account of the threatened attack of dyspnoea, I suggested that we should remove the tumour. The man would not consent to this and went home, and I believe he would not have consented to the operation at all if it had not been that a second attack of dyspnoea forced him to come again. I accordingly did the operation. I took the ordinary Gibbs' laryngeal snare, and I succeeded in removing the tumour completely. The tumour came away so well that we had the blood vessels attached to it. I have the specimen here with the blood vessels attached to the tumour, but after I had removed the tumour I found it inflamed and lacerated. I at once made a microscopic section of the tumour with a view to finding out if there had been any

malignant disease present, and I sent the tumour to a pathologist without giving him any history of the case, and asked him to examine it carefully and give me his opinion of it. In returning the specimen he said that the neoplasm had taken upon itself a malignant growth lately, and he advised extirpation of the larynx. So that I think extirpation would have done in the case. However, the success of the operation was demonstrated very shortly afterwards, because the larynx and the general condition began to improve, and by-and-by the whole inflammatory appearances in the larynx completely disappeared, and it ultimately got perfectly well. But this was the curious thing. No doubt we had found malignant elements inside the tumour, but the little gland which I noticed in the neck began to enlarge. The man did not do very well, and after two months it was perfectly evident that he was becoming affected with general disease of the system, and he died within seven days, and malignant disease was confirmed at the autopsy.

As opposed to that experience, another case came under my observation very recently—the case of a lady from Wales, who was sent to me by her physician for operation. There was no doubt whatever of the existence of malignant disease, because, immediately on her arrival, I removed the tumour and examined it microscopically, and found it to be malignant. Then came the question whether an operation in the trachea would be right or not. Here we were presented with this great difficulty—that dyspnoea might never arise, but what she was suffering from was the difficulty she had in swallowing. I had a consultation with my colleagues in the hospital. We put the facts very clearly before the patient. She and her family saw that there was no chance for her unless something was done, and it was ultimately decided to leave it to us. My colleagues again talked the matter over, and we decided to operate. I lay this case before you, even in this hurried way, for the simple reason that we hear a good deal of cases which are successful, and where the patient has lived a considerable time, but of cases in which the ordinary course of tracheotomy would not succeed we possibly hear less. We performed the operation. We laid the parts completely open; every precaution was taken to prevent hæmorrhage into the trachea; the larynx was first very carefully removed in order to see the extent of the disease. We discovered that the disease existed to a considerable extent. However, the operation was completed, and the first day everything went well, but on the second day, towards night time, the patient thought she had a difficulty in breathing. The house surgeon was immediately sent for, and, on slight examination, found there was really no difficulty; on extracting the tube, it was found that everything was as it should be. However, the patient had got into a fright, and some time afterwards, evidently on account of the fright which this little difficulty had set up, the heart's action failed, and she died of syncope. Now, that was clearly a case in which tracheotomy was not at all responsible for the death. It was simply a case in which we were forced to say to the patient, “This is the only chance of prolonging life,” and leave it to the patient and her friends to decide. From these, among other considerations, I would strongly say that—although when we have to do with malignant disease, there is a tendency in favour of tracheotomy as opposed to complete extirpation—I do not think that any particular law can be framed which will apply to every case. I should like to refer to a remark which was made by Dr. Hunt, who called attention to the peculiar relationship which existed in a great many diseases to the embryonic structures affected. We know that syphilis is very commonly found above the epiglottis, and we know that tubercle is found below the epiglottis, although we do find it otherwise in the tertiary condition.

Mr. F. B. JESSETT: The few remarks that I intend to make will be entirely

limited to the portion of Mr. Lennox Browne's paper with regard to malignant diseases of the larynx. I think we should ascertain first what Mr. Browne means by early malignant disease of the larynx. It appears to me that if you can discover that a growth in the larynx is malignant in its quite early stage, and simply perform tracheotomy, you fall very far short of what one ought to do with any prospect of prolonging the patient's life. Extirpation of the larynx, both partial and entire, is of course practically in its infancy. It has not been done sufficiently often, possibly, to warrant one's saying definitely that this or that larynx, either partially or wholly, should be removed. But I think there have been a sufficient number of cases on record now in which the larynx has been wholly or partially removed with success, to warrant us in giving the patient a chance by such an operation, if the diagnosis is sure, in an early stage. If we find by laryngeal examination that we have a growth in the larynx, and if we can remove a portion of the growth, and by the intra-laryngeal method can have that examined, and find that there is epithelioma there, I think our duty then is to perform the operation, because I do not think that the intra-laryngeal method is likely to extirpate that disease entirely. We know that in malignant disease of the tongue it is exceptional, after the removal of the malignant disease, to get a recurrence of it in the tongue, but you do get a recurrence of it in the glands all round about.

With regard to the risks of the operation, I beg with all due respect to differ from Mr. Lennox Browne, because I think, if you study the cases where death has been recorded after extirpation of the larynx, although the cause of death is put down as pneumonia, that pneumonia has been undoubtedly caused by the blood being passed down by the trachea into the lungs. Now, if Hahn's cannula is used, I think that difficulty is to a very great extent to be got over; but in using Hahn's cannula, there is one point of very great importance, that is, that after the cannula is introduced into the trachea, the operation should not be begun for a quarter-of-an-hour or twenty minutes, the object of that being to allow the sponge, which surrounds the cannula, to get sufficiently soaked, and so expand and fill up the trachea, and prevent any blood from going down. If that one simple precaution is taken, I think that a great deal of the danger of the operation will be overcome. It is true that the great difficulty in cases of malignant disease of the larynx, as it is, by the way, in malignant disease of other parts, is that we always see the cases too late, and, when the disease has extended into the cartilages to any great extent, I think that any radical operation will not do a vast amount of good. In those cases I quite agree with Mr. Lennox Browne that in diverting the current of air and the irritation caused thereby, the patient's life, if not prolonged, may considerably be eased. There is one little point that I think is worth noticing, and that is, that, in the performance of thyrotomy, and getting the two halves of the cartilage fully opened, you get a full view of the larynx, and possibly you will find there is not only one growth—there may be two or three. Now you might, according to the intra-laryngeal method, have removed one of those growths, and left behind some other which you might not have noticed at all; whereas, by performing thyrotomy, you have a good view of the whole thing, and you can remove all the growths. Then I think there is another point—that you can feel then whether the growth has extended downwards and attacked the cartilages. If the cartilages are not attacked, it is, in my opinion, unnecessary to remove them. I think by removing the whole of the mucous membrane away from the cartilages, and attending to the cords on that side, you may put back the cartilage itself, and so retain the box of the larynx, whereby any risk from the operation is lessened, and the appearance of the patient is considerably improved. With regard to tracheotomy in syphilitic affections of the larynx, I must confess

that I quite agree with Mr. Lennox Browne that it is better to perform low tracheotomy than high tracheotomy for this reason: very often if you perform it high you find you get growths in the larynx and in the upper part of the trachea that will extend into the cannula, if you may so call it, above, and cause a great deal of trouble.

MR. STOKER: Of course the subjects of extirpation of the larynx and thyrotomy are extremely interesting, but they are not under discussion. Mr. Browne's paper is upon "The relative methods of early and late tracheotomy in chronic diseases of the larynx," and I propose to confine my observations to that subject. I think there will be a general consensus of opinion in agreeing with Mr. Browne on most of the points which he has mentioned. I trust I may not be thought of a very contrary disposition if I venture only to disagree with him as to the advisability of early tracheotomy in cases of malignant disease of the larynx. But, before proceeding to that, I would just like to say in regard to tubercle, that I think it is manifest to everybody that there is one, and only one consideration, which can call upon us for tracheotomy in tubercle, and that is, dyspnoea. If we have dyspnoea, we must try to relieve it by tracheotomy. I conceive, that in the case of malignant disease, we are discussing cases in which the diagnosis is clear, that is to say that malignant disease is known to exist, and that the case is one in which death is certain. If that is so, then we come to the question whether we could do our duty best to our patient by performing early tracheotomy or late tracheotomy. In such a case, I think there are three points in relation to our duty to our patient. It is our duty to relieve him from present pain; it is our duty to make the remainder of his life as comfortable as possible; and it is our duty, if death does ensue, to see that the manner of death shall be as easy as possible. With regard to the first point, a cutting operation must involve pain; therefore, given other things the same, we ought to avoid tracheotomy, because of the pain to the patient. Now, with regard to the second question, as to how we will make our patient's life as comfortable as possible, I think that applies to the larynx, which applies to every other air-passage, that it is our duty, and it is best for the patient, to maintain the physiological action of that air-passage in all its integrity for the greatest length of time, and I conceive that in making an opening below the larynx and diverting the passage of air from the larynx, we are not maintaining the physiological integrity of the organ. Then I am sorry to say that my experience differs from that of Mr. Lennox Browne in other respects. I believe, and it is my experience, that after tracheotomy, the growth increases with much more rapidity, and I think that the passage of air up and down the larynx has a certain effect in keeping the growth in a certain way in check. I may explain my meaning, perhaps, if you will allow me to draw comparison with another kind of growth that occurs in the air-passages, and which is not malignant. Take the case of nasal polypi. The history in those cases is generally, that for a number of years the patient has suffered—generally they are indefinite as to when their sufferings began, but there comes a time when they say—"Well, eighteen months, or six months, ago my nose was uncomfortable, and since that it has been getting rapidly worse." Precisely. Six months or eighteen months ago, the physiological integrity of the nose was interfered with, the passage of air was stopped, and the growth has increased with increasing rapidity. That is exactly what I hold takes place in the larynx. Then, with regard to the secretions. If there is anything that is more objectionable than another to the patient and to his surrounding friends, when he has cancer, it is the extremely fetid nature of the secretion. I think it will be allowed by others, even by Mr. Lennox Browne, that the passage of air through the larynx entirely and always assists the expulsion of the secretion; but if you have not the air passing,

there is a tendency for the secretions to collect and become more fetid, and I think by the irritation which these fetid secretions cause, you increase the rapidity of the growth. Then, with regard to death, I do not think (but, of course, this is all pre-supposing that there is no dyspnoea) the performance of tracheotomy makes death any easier, other things being the same. We have had a very interesting case related by Dr. Dundas Grant, where the patient (we are going to see her presently) had tracheotomy performed thirty-three months ago, and is alive and well. Now, I had a patient who lived for thirty-two months without tracheotomy. The history of that case is instructive. I removed the larynx *post mortem* from this patient the day after Christmas last. That patient had suffered from cancer of the larynx for two years and a half; he was a hospital patient; he had been sent to a large hospital in London, where there is a special department, and there, excited laryngologists wanted to tracheotomize him there and then, but the man would not allow it. Then he went to another hospital, and there they wanted to perform tracheotomy, and the man declined. Now, that man died two days previous to Christmas; he died quietly; he smoked a pipe an hour before he died, and he went off from weakness. Now if that man had been tracheotomized, do you think his life would have been prolonged for any length of time, or would have been made more comfortable? That brings me to this point, that, with regard to these cases, it is an extremely difficult thing on the evidence of any one case, or of a few cases, to arrive at a definite conclusion, because, if Dr. Grant produces a case in which tracheotomy has been performed without dyspnoea, and the patient has died, it is easy to say that, if tracheotomy had not been performed, he might have lived a great deal longer; and, on the other hand, I might bring forward such a case as I have just quoted, and might be told, with a certain amount of philosophy, that, if tracheotomy had been performed, the unfortunate man would have been alive to-day.

The PRESIDENT: I think we have had a very interesting, and I may say an ample, discussion of this subject. I agree almost entirely with the very able, lucid, and logical observations of our Secretary, Mr. Stoker, with the exception of the physiological views which he has introduced, and which I do not think are at all essential, for after all, when a man has got into a morbid condition, I think whether the ordinary laws of physiology are temporarily displaced or not does not really affect the question. But I think that the main propositions which Mr. Stoker brought forward are essentially true. Perhaps it may be of interest to the members of this Society to know the result of my experience, which is now somewhat considerable, I having had the opportunity of watching diseases for nearly thirty years. I may say first of all that I quite agree with Mr. Stoker that the operation of tracheotomy does not add to the patient's comfort in any way. We will take, for instance, the various diseases which Mr. Lennox Browne has brought forward in his most interesting paper. The first important disease which he speaks of is chronic perichondritis. Of course you know that is a very grave condition, especially when it results from phthisis or cancer, but I must say that I never think of having tracheotomy performed in a case of perichondritis unless there is dyspnoea. I do not believe at all in the theory about allowing air to penetrate more easily and so on, assisting the checking of the disease. I have seen in ninety-nine cases out of a hundred where tracheotomy has been performed, except under certain conditions, and those I would limit and mention to you, except under two conditions, that every patient in a chronic disease is made more uncomfortable and more miserable by tracheotomy. In cases of abductor paralysis, no doubt it is the duty, as Mr. Dundas Grant remarked, to have the operation done as quickly as possible

in order to have yourself put in a position of safety. I believe that the rule we ought to adopt (if I might make this remark incidentally) is the rule which every experienced laryngoscopist adopts. The rule we ought to adopt is the rule which one would adopt in one's own case if one were affected. If a patient have abductor paralysis, he ought at all events to have tracheotomy performed; another condition in which it is desirable sooner or later (and to this I shall refer in a moment, when I shall consider how it ought to be limited) is in the case of syphilis. When a man has got a considerable contraction, there is no doubt that tracheotomy ought to be performed—I mean if it is necessary for breathing, then the sooner the tube is put in the better. The rule I always adopt, and I have frequently the opportunity of suggesting tracheotomy or of preventing it, is to say, “Is this person's life in danger?” I am speaking of chronic cases, and of course Mr. Lennox Browne's paper only deals with chronic cases. In acute cases it is a totally different thing: an instrument may be put in and you can almost take it out again very quickly, or you hope to do so. But in the larger number of chronic cases, and this is a point I think was not quite sufficiently dealt with, the tube once put in always has to be kept in. These remarks are incidental, but I am just rapidly remarking on each of these diseases. In chronic perichondritis, then, I say that I have never seen any benefit from the performance of tracheotomy. In laryngeal phthisis I make exactly the same observation. I do not believe in cases which have been reported, in which such wonderful cures have been effected by putting in tubes. I have always opposed it myself. In cases of laryngeal phthisis, where the tube has been put in, what has been the result? The patient has always been expectorating or coughing. Is the patient made more comfortable by that? It is very different in an old syphilitic case, which you see walking about doing his ordinary work although wearing a tube. That is no doubt comfortable; but if you take the case of laryngeal phthisis or cancer, the tube working up and down simply causes irritation, and causes increased secretion and coughing, and makes the patient ten times more miserable than he was before. I do not believe that it gives rest to the larynx, and I do not believe that it gives rest to the lungs in the case of laryngeal phthisis. Then thirdly, taking them in the order in which Mr. Browne mentions these diseases, I come to syphilis. Mr. Browne thinks that tracheotomy must be done sometimes in the case of edema. I think so certainly, if it is necessary to save life, if the danger is so great that the patient may be suffocated. Then it must be done. I should say that in old cases of syphilis it is better not to do tracheotomy too soon, for the very important reason that I have never seen a case of syphilis operated upon in my life (and I have seen a very large number of cases) where, in the case of old syphilitic disease, the tube has ever been taken out again. Therefore, you must recollect that that patient has to wear the tube for the rest of his life—that is my experience—and though I would not give a patient a day without a tube if his life was in danger, I would not put in a tube before it was absolutely necessary.

Then we come to cancer. The observations I have made about phthisis apply equally to cancer. Mr. Stoker put the matter forward very well indeed, and really I need not repeat what he said, except to say that I agree with him. I do not believe that tracheotomy does the least good in cases of cancer. I think it tends to make the disease advance more rapidly, the friction of the tube, the constant coughing, and the constant irritation has that tendency. In fact I have seen cases where the disease has been going on quite slowly, and where at last it became necessary to put in a tube. I have seen the working of the tube develop the disease much more quickly. I have seen that over and over again. Dr. Dundas

Grant remarked upon the importance in cases of syphilis of not putting the air tube in too early. I am very glad to find that he agrees with me on that point. I do not wish to trespass too long upon your time, but the result of my experience is that tracheotomy should never be done too early. It should be put off and never be done until there is absolute danger to life, and the rule you ought to apply is the rule you would apply to yourself.

Mr. LENNIX BROWNE in reply said: I find myself in agreement with some of those who differ from me. For instance, in regard to paralysis of the abductors, I have distinctly said that if dyspnoea be urgent, tracheotomy should not be delayed, but I have pleaded sometimes for a little more time. I have not pleaded for a long time; but, certainly, if the lungs become engorged, and there is evidence that life is being endangered by the delay, I would not hesitate for a moment to perform tracheotomy. Really, sir, the only gentlemen that I have to answer, and until you spoke I was not sure that I was going to answer seriously, are Mr. Stoker and yourself, as to the question of giving pain by the operation to the patient. There is such a thing as an anæsthetic, as is known even of course to Mr. Stoker. It looks like saying that if a child is ill, we must not give him physic because it is nasty. Tracheotomy can be performed under some anæsthetic, either chloroform, or, as I have repeatedly done it with little or no pain, with a hypodermic injection. You have, sir, given up Mr. Stoker's point about physiology, and, therefore, I will not enter into a discussion which would be more applicable in a debating society than in a meeting of serious gentlemen. When absolute suffocation is imminent, we must not too closely consider in relieving that, whether we are going to deviate the air from the natural passage or not, if not, the natural passage has become obstructed. With regard to your observation about œdema, I will point out that I distinctly stated when I spoke of perichondritis, that tracheotomy certainly should be done when dyspnoea was present. If there be dyspnoea, you will not be likely to get any relief except by an artificial opening into the trachea. I have never seen a case in which, given dyspnoea from perichondritis, any medical means have been able to relieve the dyspnoea and remove the obstruction. You and I, sir, are entirely, I am glad to say, in agreement as to phthisis and also with regard to syphilis. When you say "chronic syphilis" it is a question what you mean by the expression. Of course, syphilis may be of some duration before you get acute œdema. There is, of course, acute inflammation during the course of the chronic disease. I think upon this point, the case I stated of a colonel in the army, who was able to command his regiment for nine months with a tube in his throat, is in point. I quite agree that the tube is not able to be removed in stenosis. As to Mr. Dundas Grant's remarks with regard to Vienna, it is what I have often had to say to young physicians who have gone to Vienna and then come to London, "You will not see quite as much in Vienna as you will see in England; you have only a three months' or a few weeks' course in Vienna, and you see the treatment adopted, but you do not see the subsequent course of the cases." I should like very much to know something of the after-life of some of those patients who have been treated by extirpation; I fancy they would not encourage young laryngoscopists, especially young Americans who have gone through the various American schools of laryngological surgery. I must protest against any idea that tracheotomy will not arrest the disease. I have repeatedly seen cases where it has arrested the disease, and in which I am quite certain that it has made death less terrible both to the patient and to the friends. In the case referred to by Dr. Grant, he mentioned that there was a distinct gain of weight by the patient after the tracheotomy, and improvement in the general comfort and the bodily health, which confirms what I have said. I think that

Dr. Grant omitted to mention that there was microscopic evidence in that case that it was a case of true epithelioma.

The following Paper was then read :—

ON PAROSPHERIA AND PARAGEUSIA.

By CHARLES WARDEN, M.D. (Birmingham).

IMPRIMIS.—I would wish to emphasise the distinction in my Paper from that of *anosmia*, or more correctly *anosphresia* and *ageusia*, as although there is a condition of *anosphresia* and *ageusia*, in one sense of the words, it is in reality substituted for the most part by that which is depraved and morbid. I would also carefully differentiate parosmia and parosphresia as it is not *οσμή*, an odour, but *οσφρησις*, the sense of smell, which is at fault; neither is it a case of ageusia, but parageusia from *πᾶσα*, bad, and *γεύω*, to taste.

The patient, aged fifty-six, of strong mental and bodily vigour, bilious temperament, and of gouty family, was visiting a sea-side place last summer twelvemonth, and in good health, when she was suddenly seized one afternoon with severe pain, nausea and sickness, after partaking of some strong tea, highly flavoured with Orange Pekoe; she suffered much gastric and abdominal spasm, diarrhœa, and vomiting, and also much pain in iliac region, and over the locality of the right ovary, accompanied by a most disgusting taste and smell. She was unable to take any food, except a little thin gruel, everything being most nauseous to her, and partaking of the same disagreeable and offensive character; the odour of meat was intolerable—that of wines or spirits (*sal volatile* especially) being most obnoxious.

She was placed under medical treatment, and after a time the urgent symptoms were somewhat relieved, but the *perversion* of taste and smell were unaffected, and this condition has continued up to the present period. For a year or more she was unable to take any solid food—meat, eggs, fish—except light white fish, or anything more than soup, milk, and milk puddings, bread and butter, but no cheese or vegetables, except spinach—each and all producing the same morbid taste. She is subject to periodical attacks of influenza, which I look upon as gouty—*i.e.*, running at the eyes and nose, sneezing and terminating in a bronchitic cough, accompanied by great depression and nerve prostration. She suffers also from constipation, bilious attacks, and when the bowels become confined, the smell and taste are much aggravated in their nature, and at times the breath is perceptibly offensive. She likewise now and again is affected with severe cramps, especially in the fourth toe of the left foot, being taken suddenly in the street, when she is unable to move further, and does not get relief until the boot is taken off and the toe straightened by pressure. At the present time the pain has become moderated and varies, being better and worse, but is always located about the same spot, *viz.*, in the right iliac region in about the position of the ilio-cæcal valve and right ovary. She has occasional uterine pains and ovarian irritation,

much increased by any accumulation in the bowels, constipation being a prominent symptom during the first six weeks of her illness, when she was confined to her room, and unable to leave her bed for about a month ; after this period she settled down into an invalid, her symptoms varying in intensity. She has occasional headaches and vertigo, and at night she feels much the weight of the bedclothes, especially when heavy over her chest, and seems to be affected with a feeling of faintness and suffocation, accompanied by vertigo, tinnitus, etc., but does not amount to actual syncope, and suffers severely from cramp after partaking of any food containing the slightest acidity.

CAUSES.—1st. The causes of *parosphresia* are various. It often exists in lunatics, and epileptics, and hysteria ; after syphilis and convulsions, exposure of the olfactory nerves to the prolonged action of strong, offensive smells, which appears to injure the function of the olfactory nerve ; any disease or injury of the nerve-tracts or centre (*the fifth and seventh*) ; the want of normal moisture of the mucous membrane, which is most essential to perfect function. (But Lennox Browne denies that loss of smell is due to loss of the secretion, but to *tumefaction*.) The absence of pigment in the cell processes of Schultze : instances are recorded where the use of irritating applications produce loss of smell, such as alum, ether, etc. Prolonged catarrh and neuralgia are common causes, and, lastly, heredity.

2nd. Any local obstruction in the nasal passages, such as polypi, or hypertrophies, or redundant tissue, especially when the mucous membrane is dry, which exists when the fifth nerve is implicated, moisture being, according to most authors, absolutely essential to the healthy function of the sense of smell ; tumours, hysteria, *over*-stimulation, as being exposed for any length of time to foetid material. Now there is strong evidence to prove that this state of things existed to a great extent in the neighbourhood of the hotel where my patient was staying, and it would be interesting to learn if the men engaged in the night-soil department suffer from this cause.

3rd. Lead-poisoning, which is known to cause atrophy of the optic nerve (sometimes induced by the use of hair-dye). Facial paralysis ; any abnormalities of the olfactory epithelium and nerve fibres ; rupture of olfactory nerves, congenital absence of olfactory tracts ; disease of the centre for smell (tubercular, syphilitic, etc.).

These being the chief causes in cases of anosmia or anosphresia, we may draw the inference, and assume that parosmia, or rather, parosphresia, is produced in a similar way, by acting under special conditions and degrees on varying constitutions and temperaments.

In my patient I have not been able to trace any evidence of local disease in the nose, tongue, palate, throat, or mouth ; the mucous membrane is natural, and there is no nasal hypertrophy or swollen condition ; there is no evidence of hysteria or neurosis, and I should not consider her of a nervous temperament.

WALKER DOWNIE describes a form of pharyngitis sicca, met with chiefly among anæmic women, due to excessive indulgence in tea which has been *boiled* ; it then becomes strongly astringent, and thus probably

causes dry pharyngitis from the tannic acid produced. We will next consider *the apparatus of taste*, viz., *tongue, lips, cheek, palate*, the *velum pendulum palati, pharynx, œsophagus, teeth*, and even the *stomach*.

The *salivary glands*, of which the excretory ducts open into the mouth—the *follicles* which pour in the mucus which they secrete—have a powerful effect in forming the taste *mucous follicles*, and which form upon the tongue mucous papillæ and villous papillæ.

NERVES.—*Inferior maxillary* nerves and branches of superior, threads which proceed from the sphenopalatine ganglion, particularly the nasopalatine nerve of Scarpa: the nerves of the ninth pair, glosso-pharyngeal, all appear to be employed in the exercise of taste. The principal nerve is the lingual branch of the fifth pair, the fibrillæ of which are continued into the villous and conical papillæ.

TASTE.—For the full exercise of taste, the mucous membrane covering the organs must be perfectly uninjured and intact; it must also be covered with mucous fluid, and the saliva must flow freely in the mouth; when dry the powers of taste cannot be excited efficiently, and the lubricating fluids should be *pure*. The after taste is sometimes felt in the *whole* mouth, at others in one part only; *bitters* leave an impression in the pharynx, acids on the lips and teeth, peppermint both in the mouth and teeth.

SMELL.—The olfactory nerves spring from the most inferior and internal parts of the anterior lobe of the brain (but according to some authors the centre for smell is not definitely known in man, but in monkeys it is localised by Ferrier in the hippocampal gyrus). It proceeds towards the perforated plate of the ethmoid bone; it then swells out and divides itself into a great number of small threads, spreading themselves upon the pituitary membrane, and principally on to the superior part of it. The pituitary membrane receives not only the nerves of the first pair, but also a great number of threads which spring from the internal aspect of the sphenopalatine ganglion, which are distributed to the meatus and the inferior part of the membrane. *Anosphresia* then is probably due *not* to cortical softening, but to softening of the external root of the olfactory bulb, which is supplied by the middle cerebral artery.

Dr. GOWERS is of opinion that the fifth nerve is the sole nerve of taste, and that the glosso-pharyngeal has nothing to do with this function. The chorda-tympani is the nerve of *taste* to the anterior two-thirds of the tongue, but it is probably derived from the fifth nerve by the Vidian. Dr. GOWERS published a case of paralysis of one fifth nerve only, due to disease of the pons, in which taste was entirely lost on that side, not only on front of tongue, but also on the back, on the soft palate, and on the palatine arches.

Hyperæsthesia of the olfactory nerve (hyperosmia) is common in hysterical conditions, but diminution (hyposmia) or loss of sensibility (anosmia) is far more common.

Hyperæsthesia of taste (hypergeusia) met with in excitable states of the nervous system in hysterical and insane people, and along with general hyperæsthesia.

Hypogeusia (diminution) and ageusia (loss of taste) are sometimes

dependent upon changes in the mucous membrane of the tongue, or dryness of the surface, or changes in the taste bulbs, alteration of the sensory nerves of the tongue, the fifth and glosso-pharyngeal; also of the chorda-tympani, from changes likewise within the cranium, either in the taste centre situated in the temporo-sphenoidal lobe of the opposite side, or the fibres connecting it with the nerve.

Dr. MACDONALD is of opinion that the middle turbinated bone is specially reserved for sense of smell, the superior for the sense of taste; the anterior division of the olfactory nerve is distributed to the upper surface of the middle turbinated and septum, the posterior to the superior turbinated; anterior for *smell*, posterior for *taste*.

As then the olfactory nerve tract can be traced to the island of Reil to a point not far from Broca's convolution, it might be expected that in aphasic patients anosphresia would be often present, and also parosphresia. The statistics of Bale and Krishaber tend to show that disease of the left side of the brain does not frequently cause anosphresia, but that it is more common when the lesion is in the right lobe.

Perversion of the sense of smell is not uncommonly met with in persons in whom there is not the slightest evidence of disease of the nerve centres. Anomalies in the function of smell are probably due sometimes to inflammatory changes in the olfactory nerve itself, or to conditions corresponding to neuralgia in a nerve of common sensation. In ordinary catarrh, there is no doubt that irritation of the branches of the fifth nerve occurs, and that the hyper-secretion taking place is the effect of vaso-motor paralysis.

I must confess that my diagnosis and treatment have not been at all satisfactory. I am in doubt as to the exact nature of the disorder; whether we take the toxic, traumatic, or neurotic condition. There was no visible evidence of nasal obstruction of any kind; no hypertrophy of the turbinated bones, or any sign of rhinitis; no abnormalities of the olfactory epithelium, or deviation of the septum; the mucous membrane also of pharynx and larynx, tongue and mouth, was natural.

As far as I can judge, the entire symptoms must have been produced by the effect of some subtle poison in the shape of sewer gas miasms, or malaria, or a lead poisoning by the drinking water by which the tea was made, and taken in other ways. Then there is the arthritic dyscrasia to be borne in mind as a factor.

Now, unfortunately, my patient is most susceptible to the effects of iodide of potassium (which would have been my sheet-anchor in any other case), and is quite unable to take it even in the smallest dose; almost immediately producing iodism, glandular pain and enlargements, intense nasal catarrh, coryza, epiphora, metallic taste, etc., accompanied by great prostration and illness. This drug, together with the bromides, I should have pushed thoroughly had she been a hospital patient, but in this case it was absolutely impracticable. I have, therefore, been compelled to use simply the bromide, in combination with hepatic remedies. Quinine, nux vomica, oxide, and valerianate of zinc, and other nerve tonics have been given in pill, but any bitter flavour in solution is intolerable.

Cocaine applied to the Schneiderian membrane, also electric current and galvanism, are strongly objected to, and Dr. Althaus points out the great objection to the use of the continuous current ; but I should certainly give all these remedies a full trial when I again have the opportunity.

In conclusion, I am disposed to think that the evil effect (whatever it was) originated in the nerves, and I am afraid that some time will elapse before recovery. Sir Morell Mackenzie considers that two years is the greatest length of time compatible with recovery in cases of anosphresia.

EVENING SESSION.

A Paper was read—

ON ANÆSTHETICS IN OPERATIONS ON THE NOSE AND THROAT.

By GEORGE STOKER, M.K.Q.C.P.

THE advancing influence of our speciality, and the increasing number and importance of the operations connected therewith, have led me to believe that it would be of interest to this Association to bring before its notice the subject of "Anæsthetics in Operations on the Nose and Throat."

My remarks will be brief, not because the subject is a small one, or one that cannot be discussed and commented on at great length, but because it seems to me that on subjects such as these it is well to confine one's self to those points about which one can speak from experience, and which one has put into practice.

There is a tendency nowadays to write papers, and even books, which are, more or less, compilations, historical *résumés*, or digest of other men's thoughts—a proceeding more in consonance with compiling biographical dictionaries than conducting scientific discussions. If, then, I mention as ideas of my own points that have already been published, I apologise beforehand, and ask pardon for the ignorance that is at once my fault and my misfortune.

I do not propose to consider the subject of my paper from the anæsthetist's point of view, but rather from the surgeon's or physician's, and shall, therefore, not allude to many points in the details of administering anæsthetics which can be found in any hand-book on the subject.

The subject of anæsthetics in operations on the nose and throat naturally divides itself under two heads—firstly, local ; secondly, general anæsthetics.

Of local anæsthetics, cocaine takes the first, and it seems to me the only place, and, looking back, one must really wonder how we did without it so long. The hydrochlorate is the salt in common use ; it is very soluble, and fresh solutions should be used. The best plan is to keep the drug weighed out in six-grain powders in a stoppered bottle, and with a drachm measure a solution of the required strength can quickly be prepared. In my experience, nothing under a 20 per cent.

solution is strong enough to produce satisfactory results. The solution can be applied either with a brush or spray to the nose, pharynx or larynx, or to the nose by a plug of cotton wool saturated with the solution. By means of the brush the action of the drug can be more locally confined, whilst with the spray its effects are more widely produced. For the larynx and nose the spray is considered to be the best, as the passages are so narrow it facilitates the introduction of instruments.

Having applied the cocaine, five minutes should be allowed to elapse for it to take effect before the operation is begun, and it is well in this relation to remember that there is a time limit, after which its effects rapidly disappear, and a new application becomes necessary. For an ordinary case, with a 20 per cent. solution, ten to fifteen minutes is the limit. The surgeon should always test the effect of the drug before operating by touching the parts about to be operated on with a blunt probe.

The sub-mucous, interstitial injection of the drug is to be strongly deprecated, and most of the cases of cocaine poisoning that I have heard of have occurred when it was administered in this way. The symptoms of cocaine poisoning are a sudden feeling of faintness and giddiness, with fluttering and extremely fast action of the heart, and breathlessness. Cold applications, the recumbent position, and the exhibition of bromide of potash, are the best restoratives to employ.

Cocaine is suitable for all minor operations in adults, but in the case of children it is not so advisable. Being sensible, the terror of seeing instruments used still remains, and the peculiar sensations it produces often greatly alarm the little patients. In the case of most children, if an anæsthetic is necessary it is best to use a general one.

There is one operation, the circumstances of which require special consideration as to the advisability of using cocaine—I allude to operations for nasal polypi. In cases where there are only a few polypi, or where, being many, only a few are removed at each sitting, cocaine is most satisfactory; but when there are a great many polypi to be removed at one sitting it is not at all certain that it is advisable. The growths themselves prevent the perfect and complete anæsthetising of the parts, and also in these circumstances the passage of a finger into the naso-pharynx is often necessary, and cocaine by no means obviates the great discomfort and pain that must follow its introduction. It does not appear that the position of the patient in any way facilitates or hinders the action or application of the drug.

The selection and administration of general anæsthetics in operations on the throat and nose presents many points of interest.

I propose first to allude briefly to nitrous oxide, ether and chloroform, then to state the particular method I adopt, and then to state some of the general special difficulties attending the administration of anæsthetics in operations in the parts named, and how these difficulties may be best avoided or obviated.

For operations which occupy a minute or so nitrous oxide is sufficient, as, for example, in the removal of tonsils, for which operation only I employ it by itself. On children it is especially useful, as being almost

tasteless they do not shrink from it as from ether or chloroform. It is usually administered by means of Clover's apparatus, a snore or slight stertor in the breathing indicating that the patient is completely insensible. Care should be taken immediately the operation is completed to hold the patient's head well forward, to prevent the admission of blood into the air passages.

Ether is, it will be universally acknowledged, the safest of all anæsthetics, the great drawback to it being the extremely unpleasant and irritating character of its vapour, and that it cannot be continuously employed alone in operations in the air passages, as it must be administered undiluted.

Chloroform is more pleasant, but not so safe as ether, and has the advantage that it can and must be administered diluted with air. The above are the three principal general anæsthetics, and not in the use of one, but in the combination of all three is to be found the safest and most convenient method of anæsthetising patients on whom we are about to perform operations in the air passages.

The nitrous oxide is first given to produce insensibility ; this avoids the discomfort of inhaling ether, which is then administered to produce complete and more lasting anæsthesia ; finally, chloroform is by means of a Junker's apparatus pumped in during the progress of the operation through whichever passage is most convenient. This is the usual method, and is, I believe, almost universally acknowledged to be the best—an exception, however, being found in the critic of the *Edinburgh Medical Journal*, who, in criticising this method as described in a pamphlet of mine on "Deviations of the Nasal Septum," calls it "A very cumbersome way of anæsthetising a patient," and says he has "seen many operations on septums carried out safely under the administration of chloroform alone." So, no doubt, have many of us, but that does not disprove the safety and convenience of the method I have mentioned.

We now come to the consideration of the difficulties that attend the administration of anæsthetics in operations on the nose and throat.

These are best considered firstly as general, and secondly as those peculiar to certain operations.

The first difficulty that meets one is the smallness of the space, but as this is now a purely surgical item, and only indirectly affects the anæsthetic, it is not necessary to dwell upon it here.

The next point we have to consider is the fact that we are operating on the air passages. This difficulty confronts us only when we begin to operate, not in actually producing anæsthesia, but in keeping it up, and here the advantage of pumping the chloroform through a tube is seen.

Our policy must be an alternative one : if our operation is in the nose, then the vapour must be forced through the mouth ; or if the operation is in the mouth, it is through the nose—the natural breath way—that the air and vapour must pass into the lungs.

Sometimes there are obstructions in both passages, and then it becomes our duty to select the passage which is most obstructed, to commence the operation in it, leaving the other and most open one for respiration and passage of the anæsthetic vapour.

Over and above these two difficulties, we have a still a greater one to encounter, which is the passage of blood and mucus into either the swallowing or air passages, in the former case inducing vomiting, and in the latter symptoms of suffocation. There is no doubt that the irritation consequent on these operations causes a greatly increased flow of saliva and secretion of mucus, but in the worst of cases this can never approach in quantity the blood that is poured out. (I will refer to this point later on.) We can most effectually meet these difficulties by placing the patient in the following position. In the first stages of anæsthesia the patient should be placed on his back, with the head and shoulders supported on a thick triangular or wedge-shaped cushion, the head resting on the thickest part of the wedge. When complete insensibility ensues, and just before the operation commences, the patient should be drawn higher upon the cushion, and the head and neck allowed to drop over, until the top of the head rests on the couch. The cavity of the nose thus becomes the most dependent part of the air-passages, and into it the blood gravitates, and can neither pass up the food or air passages. Another advantage that has been recently demonstrated by Dr. Howard is that it is in this position the air-passages are most open, and the epiglottis most raised. It is necessary, especially in the case of females, to bind a towel round the brows, and pin it behind at the nape of the neck, otherwise the blood running down the forehead is likely to get into the hair, and form clots.

I have found that sickness seldom occurs when the patient is in this position, and unpleasant symptoms of choking seldom appear. Of all the operations on the nose and throat, it is in that of removal of post-nasal growths that the position is most suitable. Everyone who has operated with the patient in the ordinary position must have experienced the difficulty and unpleasantness arising from the somewhat profuse bleeding that usually occurs—the constant stoppages to swab out the pharynx, or to wait whilst the patient coughs or vomits; but this position does entirely away with such embarrassments. In hurried tracheotomy this position is also advisable; it favours breathing, or the entry of air into the lungs, and the blood cannot gravitate down into the bronchi if we are obliged to open the trachea even before the external bleeding has stopped.

Also in the removal of tonsils, where it is found necessary to anæsthetise the patient, this position can be adopted with benefit, as the position can be maintained and the patient kept anæsthetised till the bleeding has quite stopped.

The drawbacks to this position are that, though it facilitates the administration of anæsthetics, in some operations it undoubtedly creates difficulty for the operator. This is, perhaps, most marked in operations for the removal of cartilaginous spurs and exostoses in the nose. In such cases it is easier to operate when the patient is in the sitting position. Under these circumstances it will be found useful to plug the naso-pharynx by passing a piece of sponge of suitable size into that cavity. This effectually prevents the passage of blood into the throat. I can confidently recommend this method, having often practised it. I ventured to advocate it in a pamphlet which I published last year, and which

I alluded to before, and the suggestion was also somewhat roughly handled by the critic of the *Edinburgh Medical Journal*. I wonder if that critic ever put the method into practice ; if not, I respectfully advise him to do so before making what I am bound to consider, a senseless objection. He says "its presence is likely to increase the post-nasal secretion, which is always troublesome in operations on the mouth and nose." I would like to know if the critic alleges that the extra quantity of mucus (if there is any) at all approaches in quantity the amount of blood which must inevitably pass into the throat in these operations. My own experience is directly opposed to any such assumption.

In operations for nasal polypi, when the growths are situated quite anteriorly, this plugging of the naso-pharynx is useful, but in cases where they are situated posteriorly, and the finger has to be passed up behind the soft palate, of course it is not feasible.

I trust I may be pardoned if I venture to conclude by drawing your attention to a point about which I have as yet but little experience, but which I have been led to observe by examining the larynges of patients whilst in the "head-extended" position under the influence of an anæsthetic. The suggestion I would offer is this, that I believe we will find in the position of the patient, as I have described, a means of intra-laryngeal operation without a prolonged preparation or training of the larynx to render the passage of instruments possible. We shall have no fear of causing the patient present pain, he will be insensible ; we shall have no fear of suffocation from the passage of blood into the lungs, it must gravitate downwards ; and, above all, we shall be able to proceed more deliberately, slowly, and with greater certainty in the performance of the operation.

DISCUSSION.

MR. DUNDAS GRANT : I have no doubt I shall echo the feelings of a large number of those present when I refer to the anxiety which I have felt on many occasions to be able to relieve myself from the discomfort which one necessarily feels when a patient whom I have treated goes away, and is likely to say to the next friend he meets, "I have just been under Dr. So-and-So, and I have passed with him the most unpleasant quarter-of-an-hour it has ever been my lot to experience in my life ;" for, unfortunately, there are a great many patients who like to go away and boast to their friends about what they have had to put up with. Naturally, therefore, such considerations lead one to consider the various possible means of divesting the unpleasant processes which we have to put patients through, as far as possible, of the horrors and pain attendant upon them. I have thought a good deal, therefore, of the various ways of administering anæsthetics. In the first place, I can fully endorse Mr. Stoker's opinion as the value of pendent position in performing operations in connection with the nasal cavity. My tendency has always been, as it is, I think, with most others, to rush such operations through as quickly as possible, and I dare say it will be generally agreed that it is the best way, and very often, when the operation is over, the patient feels stronger than before it was done, as most of us have felt after undergoing the unpleasant operation of having a tooth extracted. We should not be too ready to administer anæsthetics on every occasion that arises, but, at the same time, it is necessary for a number of people, even for the smallest operation that one may have to perform. Naturally

enough, one's first thought turns to cocaine. With Mr. Stoker, I should like to say that my experience has pointed very much to the value of having a perfectly fresh solution of this preparation, if we are going to use it all—that is to say, if we desire to do justice to the patient and to ourselves. I have frequently not used a preparation of cocaine when I have had it in solution for a more or less considerable time, and the way I have used it is this: I have taken the fresh powder in a little measure, into which I have put twenty, or ten, or five drops, as the case may be, and, in addition to that, I have used a quill, cut so as to contain a certain quantity of cocaine. But the drug, if it is to be used at all, must be used fresh, and, with that, one can readily perform the usual operations about the nose and throat.

There is one operation where it must commend itself very highly to those who do nasal surgery, and that is with reference to the turbinated surfaces where there is an obstruction with the attendant discomforts, and the operation I invariably use for that is the perforation of the turgid body with a very fine galvanic needle. The disadvantage of cocaine is that it at once causes a collapse, and prevents the insertion of the needle right into the centre of the cavity. Most patients, without your telling them too much about it, will allow you to perform that operation. But with some it is desirable to avoid the slight attendant discomfort, and for those cases I have found it necessary to use nitrous oxide. When you use that the patient comes to again in a very few moments, and knows nothing about it except that he can breathe more comfortably. That is one example in which I think an anæsthetic is very valuable. Then, again, for the removal of tonsils I have used the nitrous oxide in a number of cases, more for the purpose of proving to myself that the method was useful than with a view to using it as a constant thing. I happen to have here the notes of the first few cases in which I used it. In one case it took a minute and a quarter to get the patient thoroughly under control, and ten seconds to remove the tonsils; and in another case a minute to get the patient under, and five seconds to remove the tonsils. In point of fact I think that is the most desirable way of administering any anæsthetics during the removal of the tonsils. At the same time I have frequently brushed the tonsils and the fauces with a solution of cocaine, and I have found that it diminishes the pain of what, as we all know, is not a very painful operation for the patient to undergo.

So far for nitrous oxide. There is another operation, viz., for the removal of adenoids, and I have used nitrous oxide for that, and I have found it an exceedingly satisfactory way of administering an anæsthetic. The method which I adopt is to scrape the adenoids together with the finger nail, until they appear in a clump in the vault. This can be done during the short period that is required for administering the nitrous oxide, and while the gag is in the mouth, keeping the mouth well open. Then with a good light—you must have a good light—and while the head is held perfectly steady, knowing of course your geography, you are able, after having done that, to remove all the little aggregated adenoids in one, or at most two operations. I do not say there may not be some cases where there may not be some closer adhesion or growth to the back of the surfaces, but as a rule that is perfectly sufficient, and I would always adopt that course where an anæsthetic is required. When that has not been sufficient, I have found that a second application is all that is required, but I have found one in most cases extremely satisfactory. As regards the administration of chloroform, I have avoided that as much as possible, but I have used it. I have carried it out not quite so perfectly perhaps, but I have accepted the principle, which Mr. Stoker puts forward, of throwing the head well back, and no doubt it is a good one. At the same time one has, no doubt, to educate oneself a little to the position, and, really, from the diagram we have before us, it would seem almost necessary to stand on one's head

to operate ; but as a matter of fact it is not nearly so inconvenient as the diagram would lead one to expect, and I think those who use it would find it a most desirable means of attaining the end in view. For nasal polypus it is desirable that the patient should be in an erect position as nearly as possible, for if it is required to remove the polypus in one sitting, it is necessary to get the finger into the back of the passages, and as that is a very painful operation for the patient, I have depended as much as possible upon the free application of cocaine. If by the administration of cocaine, people can be induced to put themselves under the care of a surgeon, when otherwise they would be in too great dread of what they might have to undergo, it would be of the greatest benefit, and there would be a very great advantage in the use of cocaine.

MR. LENNIX BROWNE: I have no doubt about the interest which will be felt by us all in Mr. Stoker's paper, but I am not quite sure that there will be entire agreement upon it. I for one do not use more than a ten per cent. solution of cocaine. I put in a little powdered cocaine, and make a little solution. I do not much care whether it is twenty-five, or thirty, or forty per cent. if necessary, so long as the patient is locally anesthetised. I did not hear any remark from Mr. Stoker as to the advantage of applying a plug of cotton or absorbent wool soaked with cocaine by introduction into the nostrils, but I have found that to be one of the best methods.

MR. STOKER: Yes, I did mention that.

MR. LENNIX BROWNE: I did not catch it. However, I do not claim any invention for it. I do not suppose it is very original, and I do not think much of these small inventions as we call them. They come to us in practice, as we find they have come to others. I find that if I have put a little plug of cotton wool into the nostrils, and have had to leave the patient to see other patients in the meantime, if I have had to leave the patient for a quarter of an hour, I have got a much better anesthesia than if I had used it for only ten minutes. But this was for the nose. For the throat from seven to ten minutes is the limit during which I think I ought to operate. There are two disadvantages in using cocaine in the nostrils. I had some time ago to examine a distinguished judge's nose, and I thought the passage was very narrow. I thought that indicated a polypus, but when I put cocaine into the nostrils, I found that the oedema of the middle turbinated body was so much developed that I might very well have been mistaken. That was an illustration of physiological change which had been produced. If on the other hand you give nitrous oxide, you may well be led to think that you have much more to destroy by the galvanic cautery than you really have. There was a remark made by Mr. Stoker as to children being "sensible." I think he meant it not in the sense of intelligence, but of their being conscious, and of course they are more conscious in that sense than adults. But it is singular how little pain they feel in operations. It is of course marvellous to us now that we are acquainted with the properties of cocaine that we ever did without it. But still I have operated on hundreds and thousands of tonsils without an anæsthetic, and I have often refused to give an anæsthetic. One has seen a child suffering intensely from a convulsive attack, but the mere lancing of gum will stop its distress at once; so that if you really give a child relief, I do not think the child suffers as much as we often think. No doubt there is, I think, a certain consciousness, or dread, or sensibility on their part when they see the doctor. Now we have heard to-night about the use of the finger in nasal polypus. I have operated in many cases of nasal polypus, but in such cases I am not in the habit of putting in my finger, and I may say I have operated upon some thousands. I do not know why you should do it. It is said you cannot otherwise get hold of it. Well, I can assure

you it is very rarely I find it necessary if I have a bright light, and a very bright light is a *sine qua non* in a case of nasal polypus. So long as you can see what you have to do, when you have your snare on, you are able to draw the polypus down, though in one case I was not able to draw down the polypus. But I am not in the habit of putting my finger behind the soft palate. I can quite conceive that if I were, it would be necessary to spray the throat with cocaine, but I am not in the habit of doing it at all. I think that the wool in the nose is enough.

Now one word as to general anæsthetics. As I have said I am not in favour of applying anæsthetics in these operations, or even in the case of nasal deflections. I have operated I do not know how many times in these cases, and if the patient is not greatly relieved by the operation I never use anæsthetics, and I must say they are much more comfortable when I do not. From what patients have said to me of their distress afterwards, I do not find that even with the drill or the saw, the distress is so very tremendous, though I do not say I should like to have it done myself. I should not like to have it done even with cocaine, but at the same time it depends upon the patient himself more than anything else. If the patient manifests a strong desire to have an anæsthetic, I let him have it; but if he bears the operation without, I find the patient says, "I am very glad I did not have it." If I do use a general anæsthetic, I find that by giving first nitrous oxide, then giving a little ether, and then resuming nitrous oxide, I can get from seventeen to twenty seconds of complete anæsthesia, and it is astonishing what a lot you can do in twenty seconds if you have to drill a nose. If you only have a watch before you, and see what twenty seconds represents, when, as one knows, you may take off a couple of tonsils, and scrape off growths behind the soft palate in five seconds. One word more with regard to cocaine. I think we are going a little too far in the use of it, and I think we are allowing patients to get into cocaine habits. It is my opinion that to allow patients to use the cocaine spray is a bad thing, because I think it brings about certain pathological conditions, especially in diseases of the nose, and by inducing a continual state of paralysis of the nerves, you lead to a condition of chronic anæmia of the parts.

Dr. HOWARD: I think there is one portion of the paper which is very interesting, and that is with regard to the position of the patient. By accident, I happened to mention to Mr. Stoker this position which we have had referred to with reference to laryngological operations, but I did not then think that he would have thought it worth his while to carry out the suggestion. I know Mr. Stoker has been working with this in view for a considerable time, but I think he has found that the practical results have been quite all that I suggested they might be. Now, I will add very little in the way of comment, and it is unnecessary that I should add much after the very able paper of Mr. Stoker. What I have to say will be confined to two persons and two points. The two persons are the operator and the patient; the two points are first, the operation, and next, the absolute security against possible accident. I think those are the points that chiefly arise upon the paper. First, as to nasal polypi. I have operated a great deal upon them, and I cannot help referring to the great advantage there is in obtaining an ability on the part of the patient to blow the nose as you proceed. It is a very great advantage. Now we come to the naso-pharynx. It seems to me that that region is very vaguely described. If you operate without an anæsthetic, I think you will all certainly agree with me that the operation is not an agreeable one for the operator; and for the patient it is of course more disagreeable than for the operator. I think really in that regard it would not be a disadvantage if everyone of us would submit to the various kinds of operations which we have to practise on other people, so that we may be able to estimate their feelings. If one can

judge of the pain in these operations by the screaming of the patient who has to endure it, it must be very great indeed; and the ordinary operator often feels compelled to stop short of what he knows he ought to do, because he knows the patient will not bear any more. That brings me to the point with regard to incomplete operation and multiplicity of operations, when, after operating once and having done your best, you are still satisfied you have not done all that might or could have been done.

With anæsthesia, if you choose to induce anæsthesia, there is this advantage, that at one sitting you can do in the post-nasal spaces all that is required—you can do at that sitting all that could be done in a multiplicity of sittings, and you have the satisfaction of knowing that you have done it, and without pain to the patient. But sometimes one has to operate at night, and, if you have to operate in the night-time, it is a tremendous calamity to have a patient dying from an operation, and that is always a possibility from inducing anæsthesia. In those cases there is but one course for the fluid or blood to pass away, and when fluid has but one course it may have an effect which you do not wish, and you may have the death of your patient occur from suffocation on the spot. On the other hand, if you operate, and the patient goes away satisfied, you may find three weeks afterwards perhaps that the patient is dead from the effects of what he has undergone. It is really a great advantage to know that you can perform the operation in one sitting, and with absolute security. I really think that the position which is shown in the diagram which Mr. Stoker has referred to gives you absolute immunity. The head is down, and it is a difficult thing for blood or any other fluid to flow up-hill. It does not matter how much blood you spill in that position, none can get into the trachea. I know how much can be done by inspiration, and with what great force a fluid can be sucked up, but it cannot very well be sucked from the nose into the trachea when the trachea in that position lies far above it. The position, therefore, provides absolute security against such accidents if you have the patient in that state of extreme extension. Now, I will take it gradually, and I will go gradually down to the oral cavity. Only to-day I had the good fortune to have to superintend an operation at the Dental Hospital. The operation, which was a bloody one, was performed on the lower jaw, and, though all present were not friendly to the method of procedure, I am sure they would all bear witness to how beautifully the operation was carried out. Where the blood fell into the concave space formed by the hard palate, which might have been simply made for the purpose apparently of receiving the blood, they could venture to allow it to accumulate until it ran over the upper lip, and with a big sponge they could keep sponging it away as fast as they chose, and at the point where the operation was proceeding the parts were absolutely dry and clean. Such a thing everyone said they had never seen before. Now, as regards tracheotomy, a good deal has been said, and, however skilful the operator may be, I think everybody will admit when the patient is anæsthetised (and you hardly want to do it without the patient being anæsthetised) there is hardly a possibility of the patient not succumbing. I have seen a patient walk out of the room, but he did not last three minutes. But, then, there was a comic side to it, because the next day there was a death certificate given, and on the death certificate the immediate cause of death was stated to be "carbo-anæmia"—that is to say, that the patient had too much carbon, and too little oxygen. Now, when the patient is in this position, let us see what happens. I want to speak first from the mechanical aspect. We had distinguished testimony not very long since that even a very skilful operator may perhaps miss the mark between the integuments and the trachea itself. Sometimes there is a space which causes difficulty, and it

is very desirable to know whether what is the median line as it has been struck on the skin will be the median line of the trachea. Now, if you put your patient into this position, by means of the sterno-thyroid muscles you can bring the trachea under the skin as nearly as it can be brought to the median line, and you next have the nearest possible proximity. The trachea itself is fixed and hard, and I may say that I have brought it under my fingers, and it was so hard and fixed that it was equivalent to having a frozen substance under my fingers, and I would guarantee to make an incision exactly in the middle line of the trachea corresponding to the marked line on the skin. That is a great point. It is a very great point to have the parts beneath in a line or in correspondence with the parts on the surface, so that you cannot possibly miss. I wish to draw particular attention to that one advantage of having that position. Then the next point is that, whatever blood may happen to flow from the operation, it is practically impossible for it to get into the trachea. I will say that some trachean operators may see some little difficulty in doing the operation under those circumstances, but at the same time I think they will admit that it is a good thing to have the confidence that nothing like a fatal accident can possibly occur.

Dr. ORWIN: Mr. Stoker has not referred to one anæsthetic which I have found very useful in practice. I refer to the mixture known as the A.C.E., which I frequently used. It has none of the unpleasantness of ether, and none of the dangers of chloroform, while, of course, you can prolong the anæsthesia as long as you choose. My experience of nitrous oxide is that in the great majority of instances the anæsthesia is not prolonged enough, and I cannot do all that I want to do in the time obtained from the inhalation of nitrous oxide. I think the average duration of the inhalation of nitrous oxide is from 65 to 70 seconds—not more. If you have to remove tonsils and scrape away post-nasal growths, that is not a very long time; and, speaking from my own personal experience, I can certainly vouch for the A.C.E. being the most useful anæsthetic for the throat and naso-pharynx. I believe I am correct in saying that A.C.E. is a mixture of one part alcohol, two of chloroform, and three of ether. It is from those constituents that it receives the name A.C.E. I would suggest to any gentlemen present who have not tried it that they should give it a trial. I have always found it act as a very good anæsthetic. There is no unpleasantness with it. Mr. Lennox Browne tells me that it is the mixture adopted by the Anæsthetic Committee of the Medico-Chirurgical Society. With ether the patient gets rapidly anæsthetised, but with the A.C.E. they do not come under its influence quite so soon as they do under that of ether. Now, with regard to the position of the patient when operating on the naso-pharynx, I may say that some time ago, after my attention was drawn to Dr. Howard's position, I tried it myself. I did not try it exactly in the same way as he describes, but I used to put my patients on a table of about the ordinary height; I put the shoulders on the edge of the table, and allowed the head to hang over the table, supported by my left arm, so that I could use my right hand to remove the post-nasal growths. But I found, of course, that by adopting that position the blood gravitated into the passages and accumulated until it coagulated in the upper part of the pharynx; and in one case, where I was operating with the patient under an anæsthetic, he suddenly—how I do not know, but probably it was due to my own want of dexterity and knowledge of the position of the parts—got some of the blood into the trachea, and I was very much alarmed at the prompt symptoms of suffocation which manifested themselves. I thought I should have had to perform tracheotomy on the spot. That was the case of a young boy of fourteen, and I was better able to deal with him than with an adult, so that fortunately by standing him on his head immediately I relieved

the pressure and suffocation, and he brought up a clot of blood about the size of a walnut. All I can say is that in that case the patient was taken with symptoms of dyspnœa, and it will be easily understood, with regard to the position of the head, that I have not tried it since. The usual position in which I operate is the upright position, tilting the patient forward so that the blood may gravitate downwards, and flow out of his mouth, and it seems to me, having had a considerable amount of experience, that on the whole it is the most favourable position for the operation, and the most convenient position. I have also tried placing the patient on a table on his or her chest, with the head hanging down. I support the head in that case with my hand, so that the blood and all secretions will gravitate through the nares, where, of course, if there is no obstruction, it passes away and out through the mouth. That I have found to be a very favourable position indeed, and one to which I intend to give a further trial.

The patient was put under an anæsthetic, and turned on his back, and by the mere process of gravitation the blood was allowed to come from the nares into the mouth. I hope before we meet again some of our colleagues will have tried that method, and they will probably tell us whether they have found it a suitable one or not.

Dr. THORBURN: Our discussion on this paper seems to be rather becoming one as to the best methods of removing nasal growths. I have tried various methods. In one case I was able to use forceps for that purpose, but as a matter of fact, the position of the patient is not far enough forward generally to enable me to use such a method. With regard to the method advocated by Mr. Stoker and Dr. Howard, I do not believe in putting the head so very far back as to cause extreme congestion. I think it causes excessive and extreme bleeding. I do not believe in giving ether for similar reasons; I think it increases the hæmorrhage by reason of increased action of the heart, and there is also an increased amount of dyspnœa by reason of the increased action and the effect upon the passages. On the whole I prefer to give chloroform, and I prefer to give it in this way: at the beginning of the operation the mouth should be allowed to remain slightly open. These operations have, of course, often to be performed on children, and in these cases, the little patients (who bear chloroform better than any others) breathe through the nose, and if we keep the chin up and the lips closed, there is no other way for the air to get into the lungs. Then I prefer the patient to be put freely under chloroform. We find that if the head is not extended, respiration will very often stop, because the epiglottis will be low down (or rather in this position, high up), and the back of the tongue gets into the pharynx. There is not, then, much room for the air to get into the lungs; so that I think the extension should be done pretty thoroughly as soon as the gag is put into the mouth, and the mouth then kept widely open. After that no anæsthetic should be given. The operation should be done in a minute, and if it is quickly done at the instant that anæsthesia is produced, the little blood there is flows away, and if any does get into the parts above, it is swallowed, and if any should be in danger of getting into the trachea, it flows away; I think that is the proper way of using anæsthetics. Now with regard to tracheotomy. It is of advantage if given in a certain way. I think that the chloroform should be given so that the early part of the operation can be done without giving pain to the patient, but that before the trachea is opened the patient should be sensible. Then, when the final cut is made, no blood should be allowed to get into the trachea, but when that cut is made, whatever blood there is would be at once coughed up by the patient on his returning to consciousness.

Mr. MATHIESON: With regard to the use of cocaine, I believe that it disappoints most people. For operations on the anterior nares no doubt cocaine

is useful, but otherwise I think it is of very little use. The next point is, what is the best anæsthetic for operations on the naso-pharynx? For performing operations on the naso-pharynx I think the best anæsthetic is chloroform, or the A.C.E. mixture first, with a mixture of chloroform afterwards. There are two advantages from using that. The first is that a patient recovering from the effects of chloroform recovers more rapidly a state of consciousness, and then he is able to cough. This is most important in operations on the naso-pharynx, where we have the cavities filling rapidly with blood, and unless the patient coughs quickly, there may be a danger of blood getting into the trachea. With regard to position, I have found this position which we have had shown, to act admirably. The blood cannot flow into the larynx or trachea in that position. It wells up through the nose and over the lips. I have found no difficulty whatever since I have adopted this position with patients, and I should recommend others to give it a fair trial. But in all cases it is most important that the anæsthetic should not be forced beyond the first stage—the margin of unconsciousness—because the patient immediately coughs as soon as the operation is done, and as soon as the blood touches the vocal cords. As regards the gas, I think that is too rapid in its action for an operation on the throat, and I believe the tonsils can be removed better without it at all. I should certainly say that cocaine is useful for operations on the nostrils, and ether for operations on the pharynx.

DR. ORWIN: I should like to ask Mr. Stoker one question. When the head is extended so far back, and the finger inserted in the mouth, does not the blood flow necessarily down into the stomach? How can it accumulate in the mouth and the cavity of the hard palate? In the few cases I have had where the patient was in that position, I found that all the blood simply gravitated down the pharynx.

MR. STOKER: I can explain that upon the diagram. I do not see how under any law of physics the blood can flow upwards, it must flow out at the nose.

DR. ORWIN: That is supposing you have no nasal obstruction.

MR. STOKER: That is just the point I thought I had explained, that when I have the honour of reading a paper before the association on the subject of these growths, and also on the treatment in cases of polypi, I shall endeavour to show that it is absolutely necessary to thoroughly dilate the cavity of the nose. Of course it is not of the least use removing the post-nasal growths unless you deal with the symptoms. There occurs a contraction of cavities, and if you begin by tilting the nose, then, when you remove your post-nasal growths, you have an outlet for the blood. I am sure I must express my thanks to the members of the Association for the interest they have taken in my paper, and I will endeavour to answer shortly, as far as I can, the points which have been taken upon it. With regard to the word "sensible" as applied to children, of course I was not alluding at all to children's intelligence. Perhaps "consciousness" would have been a better word to use. My experience in removing nasal polypi has been that in many cases I have been obliged to put my fingers into the naso-pharynx. Of course, if you explain to patients, they may prefer to bear the operation, and when they go away, they may say they were glad they did without the anæsthetic. Of course we know that "where ignorance is bliss" and so on; and cocaine may be used with advantage. There was another point mentioned with regard to the blood being swallowed. I do not know whether what was meant was voluntary deglutition, but I have often found that in consequence of the blood flow, when I used to operate in the upright position, I have had to stop, and the patient has vomited a large clot of blood. With regard to the A.C.E. mixture, of course that is the most desirable mixture to use if possible, and I have used it often. Chloroform is useful for producing general anæsthesia; it does not act as quickly as ether, but

after you have used it, you can then go on with the ether. With regard to the blood finding its way into the naso-pharynx, and accumulating and coagulating there, probably the patient in that case was allowed to resume the erect position, but any danger of the kind can always be avoided by keeping the nose and the post-nasal space clear of blood. With regard to the face posture, it seems to me there must be a great difficulty in that case to respiration or inhalation. The whole weight of the body then pressing on the chest would be a great difficulty in breathing.

Dr. ORWIN : I took care that the head did not come too far forward.

Mr. STOKER : I think also the position increases the bleeding by causing gravitation of the blood downwards. But I think those are minor advantages which have been referred to as compared with the advantage gained by putting the patient in the other position.

Mr. LENNIX BROWNE : I should rather think where stoppage of the flow of blood through the nose occurred it was the result of adenoids, and I have seen cases in children where the stoppage has ceased when the adenoids were removed.

The following Paper was then read :—

SOME NEW REMEDIES IN DISEASES OF THE THROAT.

By KENNETH MILLICAN, B.A., M.R.C.S.

I WISH very briefly to draw the attention of the Fellows to some practically unknown drugs, which appear to me very likely to be of material service in the treatment of diseases of the throat. It appears fairly certain that very many drugs have a tendency, in addition to their general constitutional effect, to localise their action upon certain special portions of the body or tissues. Of this we have well-known examples in arsenic, which so markedly affects the skin ; iodide of potassium the fibrous tissues generally, aconite the throat and mouth, ergot the unstripped muscular tissues, and so forth.

The first drug to which I would direct your attention is the common horse-chestnut, *Æsculus hippocastanum*. This drug I have found of marked service in granular pharyngitis of the early stage, without purulent secretion, when the pharynx is of a dusky livid colour, and particularly apparent when there is general engorgement of the alimentary canal throughout, as evidenced by the concurrent symptoms of fulness, itching and dryness of the anus, and especially hæmorrhoids. The connection between similar conditions of these two extremities is, of course, well recognised in the ordinary practice of giving a smart aperient in the earlier congestive stages of inflammatory throat trouble, especially sub-acute tonsillar catarrh, by which I mean that condition when the mucous membrane and sub-mucous tissue are chiefly, if not entirely, affected, as distinguished from peri-tonsillitis and parenchymatous tonsillitis.

The case I would select to record in reference to this drug, is that of a music hall vocalist who consulted me in January, 1887. In the previous October, she had an engagement, which necessitated rapid transit from one hall to another, some considerable distance off, and though she was suffering from cold, she fulfilled a short engagement and sang through it,

added to which she had been exposed in the latter hall to a more than usually vitiated atmosphere. Her history showed a general tendency to piles, and frequent troublesome itching dryness and sense of constriction of the rectum. She complained of a sensation, as though her throat had been scraped out with sand-paper; there was dryness and smarting of the fauces and an intolerable itching of the soft palate. The dryness of the throat gave rise to an irritable hacking cough.

On examination, the fauces and pharynx were dusky in colour, and dry, and the follicles were prominent. The vocal cords showed merely the results of an old catarrh, viz.: a muddy hue, and that sluggishness of movement which is generally the result of a long standing catarrh, and consequent partly, at any rate, upon lymph deposit in the sub-mucous tissue. This appeared to me to be a typical case for the use of *æsculus*, and I accordingly gave her three minims of the tincture in a little water every three hours. I applied no local treatment to the fauces, not wishing to complicate the result, but I painted the vocal cords twice with a solution of chloride of zinc in view of their special condition. On January 27, seven days afterwards, she was in every way improved, although she had not discontinued singing. The throat was more natural in colour and moisture; the follicles were less prominent, and the troublesome irritation of the rectum was fast disappearing. By February 3, the symptoms had entirely disappeared, the cough, the roughness and dryness of the throat, and the rectal trouble as well.

The next drug to which I would ask your attention is not in any sense a new one, though its special application to which I am about to refer, will probably be new to many. I refer to the internal use of *Tincture of Arnica* in muscular fatigue of the throat. We all, of course, know the reputed value of the local application of arnica in cases of muscular sprains and bruises. As a student, I remember hearing it constantly said, that the arnica was valueless, and that the only value of such applications arose from their being nothing more nor less than a spirit lotion. I have since then made careful, comparative trials, and am bound to admit as the result, that I think there is an efficacy in the arnica lotions over and above that of the spirit they contain. Further than that, I have tested in my own person the effect of taking internally one or two drops—if given in larger doses it is apt in some persons to induce an erysipelatous kind of rash—in a little water after hard muscular fatigue, such as rowing, and can speak positively to the rapidity with which the sense of soreness and stiffness is dissipated.

The throat conditions in which I have found this drug useful are those in which the symptoms are purely subjective, or at most accompanied by some very slight congestion. As a rule, such cases occur in those who are called upon to make at intervals considerable use of their voice, for which it has not been adequately trained, and, by consequence, almost invariably they have never acquired the art of breathing correctly. I, however, remember one case particularly where no such cause could be attributed. It was that of an out-patient in the throat department of St. Mary's Hospital, who complained of a constant aching and weariness in the throat which distressed her greatly. I forget how many months she had been

under treatment, but, apparently, without any avail. There was absolutely nothing abnormal to be seen in the pharynx. Even electricity—my favourite remedy in such cases—gave no relief in my hands, but the whole condition disappeared entirely in about three weeks under the internal use of tincture of arnica.

A typical case is that of Miss W., a vocalist, who came to me in April, 1888, complaining of huskiness of tone in the middle register of her voice. She was quite unable to sing in a warm room, and her throat was always easily fatigued. She was not short of breath, but on taking a deep inspiration gave vent to a dry, irritable cough. Her singing was "distinctly throaty," and she was not able to manage her breathing properly, having been faultily instructed. The pharynx was very slightly relaxed. The larynx normal. On April 27th she was put upon three drops of tincture of arnica in a little water three times daily, and by May 10th there was very marked improvement. The fatigue was vastly decreased, and the tone was less husky. Her singing was still "throaty," so I started her on a series of breathing exercises, and the subsequent control that she gained over her breath of course lessened the liability to the recurrence of fatigue.

A third medicine to which I would direct your attention is *Bichromate of Potash*. Dr. B. W. Richardson has, I believe, called special attention to its specific action upon the nasal mucous membrane, while in the new edition of Dr. Lauder Brunton's book it is mentioned for internal administration. In diseases of the throat, bichromate of potash appears to have a wide sphere of action, owing probably to its effect upon the capillary circulation. I have found it of great service in *chronic* pharyngeal and laryngeal catarrh, especially when accompanied by gastric disturbance, foul tongue, etc. In ulceration of the pharynx its internal administration materially aids local application, of which I find the best, as a rule, to be its kindred one, chromic acid. The most universal characteristic, however, which seems especially to indicate it, is that congestion whether of pharynx or larynx where the capillaries are brightly injected. When this injection of capillaries is a marked feature in chronic complaints, and even sometimes in acute troubles, it seems to act with marvellous certainty so far as I have yet been able to try it.

In chronic catarrh, too, with thick, stringy mucus, such as is often seen adhering to the vocal cords impeding their action and setting up an irritative cough, it has proved of the highest service in my hands.

The following case is an excellent example of the value of bichromate of potash in chronic catarrh. The subject was also a music hall vocalist of considerable standing in her profession. She lost her voice entirely in 1886, and had to withdraw from her engagements. She had been for some months under treatment before she came to me, complaining of general huskiness of voice, and particularly of deficiency of endurance of her middle register. The conversational voice was, and had been for many weeks, polyphonic. The vocal cords were muddy with a few engorged capillaries along them, seemed checked in their approximation, and there were present in both pharynx and larynx strings of thick ropy mucus. She was put upon the bichromate of potash early in February, and in a

fortnight's time was enabled to resume her engagements ; her voice rapidly improved.

I had intended to refer to one or two other drugs, but I fear I have already trespassed too long on your time, and will therefore reserve them for some future occasion should the present communication prove sufficiently interesting.

And now a few words in conclusion. As there will, no doubt, be some criticism advanced, and some exception taken, in order to forestall it, I may at once say that personally I am indebted for my introduction to these remedies to homœopaths. But in giving them to you I am doing so not as an adherent of any particular system of therapeutics. I have not adopted them in pursuance of any law, real or imaginary, but on purely empirical grounds. I have put them to the test of experiment with, to me, *so far*, satisfactory results. I say *so far* because my acquaintance with them is, as yet, too limited to justify me in doing more than, so to speak, "committing them for trial." Clinical facts are one thing, theories in explanation of those facts another ; and the generalisation of such theories into laws a third, and one much more susceptible to the introduction of fallacies.

Now as to the drugs themselves. I may further add that I remember to have seen in a very ancient domestic medicine book, dated 1600 and something, that the horse-chestnut was a very prominent remedy. Further it was mentioned in the United States Dispensatory, and is, I believe, widely used in America and on some parts of the Continent as a local application in rheumatism and gout.

Bichromate of potass, as I have already said, has the weighty authority of Dr. Lauder Brunton for its internal administration. Arnica is in our own pharmacopœia.

As to preparations and dose. I find small doses answer all that is required ; from one to five drops at most. The preparations of *æsculus* and *arnica* that I have hitherto used have been the homœopathic mother tinctures, which are carefully prepared of the same average strength as those in our own pharmacopœia. The reason for this in the case of *æsculus* was obvious, viz., that no other preparations with which I am acquainted was in existence. Messrs. Burroughs and Wellcome have, however, prepared a fluid extract, which I have no doubt will answer equally well. In regard to *arnica*, the tincture of *arnica* of the B.P. is made from the root, while that which I have seen used internally was prepared from the flowers. A condition which practically placed the drug for my purpose in the same category as *æsculus*.

Of bichromate of potass I used a watery solution of 1 gr. in 2 ozs—the same strength as the liq. strychniæ. Of this I at first gave teaspoonful doses (one-sixteenth grains), but in the case I have recorded, the first in which I tried it, the patient complained of becoming dull, heavy, and nervous, of a splitting headache, heartburn and pyrosis, pain and soreness in abdomen, diuresis, and sickness. The dose was then decreased to ten minims, but similar results ensued. Finally, on its reduction to three drops it was tolerated, and the improvement above referred to coincidently set in.

These remarks are intentionally very *sketchy* in character, for I have not sufficient facts to lay before you to justify me in dogmatising or speaking positively, I merely throw out these few suggestions in the hope that some may feel inclined to give them a trial. Their reputation must stand or fall by the result.

DISCUSSION.

THE PRESIDENT: I think we are perfectly entitled to select any new remedies from any sources, even although they may not be always of a peerless character. At any rate, there is no reason why they should not be tried. It would have been more satisfactory to some people if the particular preparations had been actually made by ordinary chemists instead of by homœopathic chemists, with their "Mother Tinctures," and so forth; at the same time, as the results have been so satisfactory, I do not think that we ought to quarrel with them. In fact, I think that it is our duty to try these new remedies and any others, whether they come from the pharmacopœia of the homœopath, or whether they come from the North American Indians. We know that some excellent remedies have been introduced by the pharmacutists of America from these sources, and from whatever source new drugs may come, I think they should be carefully tried.

MR. MILLICAN: As to my adhering to the homœopathic names of these drugs, I gave my reason for so doing—viz., that I knew no other names; and we must remember that the strongest tinctures of the homœopathists are made very much in the same way as ours—it is not until you come to dilute with spirits of wine again and again that you come to any peculiar qualities.

DR. HOWARD: In the paper a great deal has been said about the use of chromic acid. My impression has been that there is no special virtue in the chromic acid—that its pathological action was such that it arrested the circulation. I shall be glad to have some information from any member who may know as to the difference between the action of the chromic acid and the action of the electro-cautery applied in a similar way.

DR. GRANT: I wish to express my strong sympathy with Mr. Millican in his great desire to draw whatever there may be of good for our race from any source, even though it may be a somewhat suspicious one. There is no doubt that in doing so Mr. Millican is actuated by the highest possible principles, but still there is always a little difficulty in my mind. We know the immense difficulty that there is in separating the *post hoc* from the *propter hoc*, and what we require, and are right in asking for in our therapeutic investigations, is that we should know in the first place the physiological action of the drugs that we may apply. Do not take me to say that this should be in every case a *sine quâ non*, but it is the ideal. We should be able to draw from their physical action an explanation of the results which we get from the use of those particular drugs when we apply them for the purpose of combating pathological conditions. Unless we have that, even if we have that, I willingly allow that there are many sources of fallacy, but in the absence of that the resources of fallacy are infinitely multiplied, and it requires us to exercise the strongest critical judgment before we ascribe the result to the remedies that we have multiplied. There is no reason whatever, as far as I can see, that the *Æsculus Hippocastanum* should not be as efficacious as Epsom Salts; but still if that is not proved more conclusively than Mr. Millican has proved it, I do not see that we are led with any degree of certainty to the conclusion that he has arrived at. At the same time I advance this idea with the utmost diffidence, and only with a desire that we should, while keeping our

minds open, not allow our judgment to be warped by what I am sure has warped the judgment of so many excellent men who have devoted themselves to homeopathy. They have been led away by this principle instead of keeping their mind widely and largely open. They have forgotten, I am sure, in many instances, their anatomy, and their pathology in a great many instances more, and their minds have a very great tendency to be carried into the single groove of "similarity," whatever that entity may be. Suppose I had found exactly what Mr. Millican has found, I should like to know the *tertium quid*—the intermediate step—which led me more certainly to associate the result attained with the means which have been employed for the purpose. At the same time I do not for a moment say but what it is the case that the two are associated as cause and effect, and I hope that if Mr. Millican honours us and favours us with some more papers of the same bent, he will supply as far as possible that intermediate step without which I am afraid he will fail to convince a good many who are of my way of thinking. I would certainly encourage the introduction of such views, however, shall I say, heterologous they may appear, and the submission of them to criticism and unprejudiced criticism at the hands of this Society, especially when they are advanced with modesty, and with such feeling of conviction as Mr. Millican has shown us that he entertains.

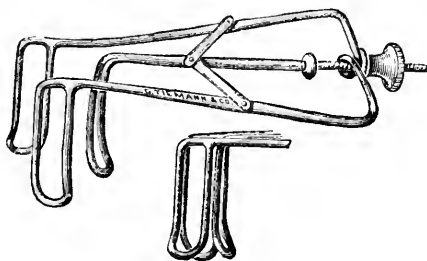
This closed the proceedings.

There was an exhibition of instruments and appliances used in the diagnosis and treatment of diseases of the nose and throat, by Messrs. DOWN BROS., KROHNE & SESEMANN, and BURROUGHS, WELLCOME & Co.

NEW INSTRUMENT.

POTTER, F. H. (Buffalo).—A Self-Retaining Nasal Speculum. *Buffalo Medical and Surgical Journal*, April, 1889.

THE accompanying cut conveys so clear an idea of this instrument, that very little description is necessary. It is so constructed as to be very light. It has three blades, of the Bosworth model. The blades can be opened and held at any point, by means of a nut and screw working on



SELF-RETAINING NASAL SPECULUM.

the middle bar, which, in turn, has attachments connecting with the outer bars. By this means it can be adapted to any size of nostril without causing pain. It is self-retaining when properly dilated, and thus is of value in surgical procedures, allowing the operator the free use of both hands. It is made by Messrs. Tiemann & Co., of New York, and can be obtained of them.

CONGRÈS INTERNATIONAL D'OTOLOGIE ET DE LARYNGOLOGIE.

We have pleasure in giving prominence to the following letter of invitation to all interested in the specialty in Great Britain and America :—

MINISTÈRE DU COMMERCE, DE L'INDUSTRIE ET DES COLONIES.

EXPOSITION UNIVERSELLE INTERNATIONALE DE 1889.

DIRECTION GÉNÉRALE DE L'EXPLOITATION.

CONGRES INTERNATIONAL D'OTOLOGIE ET DE LARYNGOLOGIE.

Paris, Mars, 1889.

Très honoré Confrère,—Un Congrès International d'Otologie et de Laryngologie aura lieu à Paris, du 16 au 21 Septembre, dans le palais du Trocadéro. Nous avons l'honneur de vous inviter à prendre part à ses travaux.

Pour nous conformer aux traditions des précédents Congrès Internationaux d'Otologie et de Laryngologie, nous avons pensé qu'il était préférable de laisser à l'initiative de chacun le choix de sujets qu'il se proposera de traiter, et nous n'avons mis à l'ordre du jour aucune question.

Nous vous prions d'adresser *avant le 15 Juillet*, au Secrétaire du Comité d'Organisation les titres des communications que vous voudrez bien apporter au Congrès.

Nous avons l'espérance qu'un très grand nombre de médecins répondront à notre invitation, et nous vous prions de faire connaître la date de notre Congrès à tous ceux de nos confrères de votre connaissance qui s'intéressent aux sciences de l'Otologie et de la Laryngologie, et qui n'auraient pas reçu la présente communication. Ceux dont vous voudrez bien nous faire connaître les noms recevront, dans le plus bref délai, les documents préparatoires du Congrès.

Une circulaire sera adressée, en temps opportun, à tous les adhérents, afin de leur faire connaître les dispositions prises par le Comité d'Organisation pour donner au Congrès l'importance scientifique la plus grande, pour faciliter les voyages, et pour rendre à ses membres le séjour de Paris aussi utile qu'agréable.

Le montant de la cotisation est fixé à *vingt francs*.

Veuillez agréer, très honoré confrère, l'assurance de nos sentiments confraternels.

Le Comité d'Organisation :

Professeur DUPLAY, *Président*.

Docteur GOUGUENHEIM, Docteur LADREIT DE
LACHARRIÈRE, *Vice-Présidents*.

Docteur LOEWENBERG, *Secrétaire*.

Docteurs BOUCHERON, CALMETTES, GAREL (de
Lyon), GELLE, JOAL, LANNOIS (de Lyon),
MENIERE, MIOT, MOURE (de Bordeaux),
NOQUET (de Lille), RUAUT, TERRIER et
TILLAUX, *Membres du Comité*.

N.B.—Toutes les communications doivent être adressées au Secrétaire du Comité d'Organisation, M. le docteur LOEWENBERG, rue Auber, 15, à Paris.

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ON THE TREATMENT OF THE SO-CALLED
PHTHISIS OF THE LARYNX,

With Remarks on Primary Laryngeal Tuberculosis and its
Curability.

BY DR. JOHN SEDZIAK,

Assistant Physician to the Hospital of the Holy Ghost, in Warsaw.

AT the fifth meeting of Polish physicians and naturalists in Lemberg, Dr. Sokolowski¹ read a Paper on "The Curability and Local Treatment of so-called Phthisis of the Larynx," showing briefly the results of his experience, based upon two hundred and fifty cases in his private and hospital practice.

At the suggestion of Dr. Sokolowski, to whom I render my sincerest thanks, I undertook the special examination of this rich material, which, as well as his private observations kindly given to me, form the substance of the following work. In my work I principally endeavoured to direct my attention to the importance of the local treatment of laryngeal tuberculosis, considering all therapeutic methods hitherto known. First, however, I think it necessary to say something of the primary form of laryngeal tuberculosis, and also as to its curability. Profiting at the same time by suitable cases observed by me, I shall briefly speak of the mixed forms (combination of tuberculosis and syphilis of the larynx), further, of tubercular growths (tumours) and stenoses of the larynx. Besides the above rich material observed by me in the practice of Dr. Sokolowski, I have also profited by the works of Heryng² and Przedborski,³ and others, the inaugural dissertation of Blindermann,⁴ and the monograph of Gouguenheim and Tissier,⁵ and lastly, reports published in special journals.

I have endeavoured to give my work as much as possible a critical character, basing it upon my great experience derived from an assistantcy

of several years in the section of Dr. Sokolowski (diseases of the throat and lungs).

The local treatment of laryngeal tuberculosis has gained a rational ground in two facts, at present regarded as undoubted—viz. :

1. That primary tuberculosis of the larynx exists, although rarely.
2. That laryngeal tuberculosis is curable, for which we have anatomical, as well as clinical, proofs.

I.—PRIMARY LARYNGEAL TUBERCULOSIS.

Does primary laryngeal tuberculosis exist—*i.e.*, with perfectly sound lungs, is a tubercular affection of the larynx possible? This is the principal question which, as regards its great practical importance, we must examine. Although the opinion of Orth, who in his *Pathological Anatomy* (page 319) expresses himself as to this question, as follows:—"Only in very rare cases the larynx is primarily affected by tuberculosis, yet those authors go too far who deny this appearance at all," gains more and more adherents (Schrötter, Schech, Lefferts, Bresgen, Voltolini, Heinze, etc.), yet there are others who deny the existence of primary consumption of the larynx. To these belong Ziemssen, Klebs, Bosworth,⁶ and Morell Mackenzie. On the other hand, some authors, as Lennox Browne⁷ and Hunter Mackenzie,⁸ suppose that primary laryngeal tuberculosis is not such a rare phenomenon as Orth affirms. That this is not so is proved by the fact that only three cases of undoubted primary tuberculosis of the larynx are recorded, as follows:—

1. The case of Orth⁹: At the autopsy of a young soldier, the author found extensive tubercular ulcers in the larynx, the lungs being perfectly sound.

2. The case of Pogrebinsky¹⁰ (from Odessa): A butcher, eighteen years old; in the larynx extensive ulcers on the vocal cords, the rest of the larynx infiltrated. The lungs seemed to be unchanged. Death. Autopsy showed the left ventriculus Morgagni entirely, the right one partly, ulcerated. Both vocal cords completely destroyed, the ulcers spread all over the trachea, in some places cartilage bare. The edges of the ulcers uneven, tubercles on their base. The microscopic examination proved the tubercular character of the ulcers. The lungs quite healthy.

3. The case of Demme¹¹ (from Bern): a boy, four years and a half old, healthy-looking; hoarseness. The laryngoscopic examination showed the mucous membrane very red and swollen, especially on the posterior part of the larynx. At the posterior part of the vocal cords (in the neighbourhood of the processus vocales) a flat and uneven ulcer, the size of a cherry stone. In the lungs no change. A month later, lepto-meningitis tuberculosa (tubercles in the retina). Death. Necropsy showed inflammation of meninges. In the posterior part of the larynx, an extensive ulcer (in the secretion of the ulcer very numerous tubercle bacilli were found). The lungs entirely sound.

Besides these three cases, Massucci¹² reports that Marchiava observed three autopsies, in which were found tubercular changes in the larynx without affection of the lungs.

There are two factors on which we must base the recognition of primary laryngeal tuberculosis :—

1. The lungs entirely sound, which we are able to prove at the autopsy (Stoker ¹³).

2. Undoubted tubercular character of the laryngeal affection—only to be discovered by microscopic examination.

The three above stated cases (Orth, Pogrebinski, and Demme) entirely agree with both these points, and for this reason they furnish undoubted proof of the existence of primary laryngeal tuberculosis. On the other hand, they show that Orth is right when he says that the condition is extremely rare. Indeed, as we are going to convince ourselves further on, there still exist, relatively, almost a great number of observations, mentioned as primary consumption of the larynx, yet they do not agree with one of the above points, and, therefore, deserve the name of probable primary laryngeal tuberculosis. Thus, in one of them the necropsy showed, in fact, perfectly sound lungs, yet the character of ulcerations remains doubtful, on account of the want of histological and bacteriological examinations. In the other cases the character of the affection was undoubted, but they did not end in death; so there is no absolute certainty that the lungs had not really been affected. To the former category belong the following observations :—

1. The case of Williams ¹⁴: a man of twenty-one years of age with symptoms of inflammation of the kidneys. At the autopsy, besides changes in the kidneys and heart (secondary), the larynx exhibited swelling of the ary-epiglottic folds, ulcers of epiglottis, with grey tubercles, the same on the posterior part of the larynx. Lungs entirely healthy—no trace of tubercles similar to those in the larynx.

2. The case of Gouguenheim ¹⁵: At the autopsy of a man, aged forty-two years, ulcerations were found in the larynx, the lungs being perfectly sound.

3. The case of Cockle ¹⁶: at the necropsy, lungs unaffected, ulcerations on the left vocal cord, supposed to be tubercular.

4. The case of Morell Lavallée, ¹⁷ described as primary laryngeal tuberculosis. At the autopsy were found extensive ulcerations above the vocal cords, swelling of the epiglottis and ary-epiglottic folds, lungs perfectly sound.

To the second series belong all those cases, recognised during life, as primary laryngeal tuberculosis, yet not affirmed by necropsy :—

1. The case of Trifiletti ¹⁸: a girl, twenty-one years old, lungs healthy, in the larynx slight changes at the commencement (symptoms of catarrh); later, ulcerations, and great amendment by local treatment; finally, slight changes at the summits of the lungs were remarked. The author bases the probable diagnosis of primary laryngeal consumption in this case upon the following points: (1) on the course of the disease; (2) on the long duration until the occurrence of the first pulmonary symptoms; and lastly (3), on the relative amendment by local treatment.

But in the present state of science the proofs, given by the author, by no means convince us. Nowadays we have more certain proofs as to the

character of this disease of the larynx, *i.e.*, ulceration, in doubtful cases—namely, examination of the secretion of the ulcers in reference to the presence of tubercle bacilli, reserving, of course, all precaution to avoid diagnostic mistakes. For this purpose we must first brush the larynx with cocaine—in this manner we are able to avoid the contamination of pulmonary secretions, resting accidentally on the ulcerated surface. We must afterwards use sterilised platina (Rosenfeld).

B. Fraenkel²⁹ was the first who drew attention to the importance of this method, later on Masini,³⁰ and others. This method, in my opinion, deserves attention. Now, however, it is known, that in the course of pulmonary phthisis other, not exactly tubercular, affections may appear. I mean among others (syphilis) the so-called catarrhal superficial ulcerations (*erosions Geschwüre* of Virchow). Indeed, Orth affirms that they mostly form from the scattered tubercles, yet Heryng,³¹ and later, Lennox Browne,⁷ Elsberg,³² Sokolowski,⁴ Schnitzler,¹⁶ affirm them to be catarrhal. Gottstein,¹⁹ however, does not admit this. These “erosions” heal easily, and thus are to be explained the rather quick results obtained under treatment. Although Fraenkel and Schnitzler affirm that they are able to discriminate between catarrhal and tubercular ulcerations, Heryng and Schech do not think this possible. We return to further criticism of the second series of cases :—

2. The case of Ziegelmeyer³³: primary laryngeal tuberculosis with probably healthy lungs; healing of ulcerations.

3. The case of Sinclair Coghill⁷: a woman with hereditary predisposition; in the larynx tubercular ulceration of the epiglottis (in the secretion of the ulcer tubercle bacilli were found); lungs intact.

4. The case of Morelli³⁴: primary growth of the larynx.

5. Case analogous to the preceding, reported by Delio,³⁵ from Dorpat: a man, forty-one years old: in the larynx a growth, arising from the left false cord; lungs sound. Removal of the growth by means of external operation (laryngo-fissure). The histological and bacteriological examination proved the tubercular character of the growth.

6. The case of Stoerk³⁶: during several years the author could not find any changes in the lungs—in the larynx, however, existed undoubted tubercular changes. Lastly, to this series belong the cases cited by Hunter Mackenzie, namely, of Cahn (primary tuberculosis of epiglottis), of Dejérne and Neidert, likewise the case of Renzi,³⁷ combination of primary laryngeal tuberculosis with syphilis. Here we must also add our case described at the end of this work.

Hitherto we have spoken of primary laryngeal tuberculosis, understanding by it the tubercular changes in the larynx without affection of the lungs. Yet there exist, in literature, cases for which the name of primary consumption of the larynx will almost be more appropriate, namely, where the disease lodges itself in the larynx earlier than in the lungs. This form Neidert³⁸ believes only to be possible. Indeed, Orth advises to be very careful in similar cases; we can never be sure if the primary changes in the larynx gave an impulse to the secondary affection of the lungs (as always happens, according to Mandl³⁹), or the reverse.

It is, however, possible (Orth): "that in the lungs the process comes to a standstill, while in the larynx, once commenced, it continually advances."

We must make an exception for these cases, in which undoubted tubercular, more or less extensive, changes were observed in the larynx with intact lungs, only affected in the later stage by disease, which has been proved at the necropsy. These cases are noted in literature, and for them, in my opinion, the name of "primary laryngeal tuberculosis" is perfectly appropriate. To them chiefly belongs the case observed by E. Fraenkel,⁴ Hamburg: A man, aged thirty-one, under observation five years. In the lungs, no changes; in the larynx, from the beginning evident tubercular (in secretion of ulcers tubercle bacilli were found) changes (infiltrations, afterwards ulcerations) existed. The necropsy showed deep destruction of the larynx and trachea, in the lungs discrete peri-bronchial miliary tubercles; caseous and necrosed foci were nowhere discovered.

To this series we must also add the case of Rabain,³¹ of Bordeaux. At the autopsy of a man fifty-one years of age, miliary tubercles were found in the lungs—in the larynx deep destruction, as the author supposes (without microscopic examination), of a tubercular character.

Summing up all the cases we have been able to collect of primary laryngeal phthisis, we come to the following results:—

1. Primary laryngeal tuberculosis undoubtedly exists (cases of Orth, Pogrebinski, Demme, and E. Fraenkel).
2. The appearance of primary tubercular affection of the larynx is exceedingly rare, as Orth justly affirms.
3. The diagnosis of primary laryngeal phthisis must be based—
 - (a) Upon the post-mortem examination (intact lungs, acute miliary tuberculosis of the lungs).
 - (b) On the proof of the character of the laryngeal affection by means of histological and bacteriological examinations.
4. During life we can only speak with more or less probability of primary tuberculosis of the larynx.

II.—THE CURABILITY OF SO-CALLED LARYNGEAL PHTHISIS.

The curability of laryngeal tuberculosis has hitherto been looked upon with scepticism, for, as late as the year 1885, Orth expresses himself, as follows:—

"I have never seen an entirely recovered laryngeal tuberculosis myself, nor has, so far as I know, such a case been anatomically described and investigated."

This author by no means denies the possibility of a partial recovery (*partielle Heilung*), viz., that is to say, a cicatrization of individual ulcers in the larynx.

Heinze and Eppinger,⁵ and also Hooper³² and Krishaber,⁵ likewise oppose this opinion, which, however, gains more and more adherents, especially among clinicians, as Schnitzler, Prosser James,³² Rossbach, Hayes,³² Senesse,³³ Tobold, Prior, Ziemssen, Bosworth, Schech, Reichert,

Cadier, Tauber,³⁴ Moure, Krause, Sokolowski, Heryng, Schmidt, Gouguenheim, and lastly, Schrötter.

The question of curability of laryngeal tuberculosis is of very great practical importance. A decision in the negative brings with it therapeutic nihilism, while the acknowledgment of its possibility gives an impulse to the whole series of experiments having for their aim this recovery.

That phthisis of the larynx is curable we now possess certain proof. Heryng,² in his work lately published (1887), described a very interesting case of spontaneous recovery in a woman, aged twenty, with fibrous phthisis of the lungs, and a cicatrix in the posterior part of the larynx.

The microscopic examination showed here the cicatrization of an extensive laryngeal ulcer.

Thus we have an anatomical proof that laryngeal tuberculosis is curable, and that this recovery can take place spontaneously. On the other hand, clinical observations convince us that, although rarely, laryngeal phthisis can be cured. Under what conditions this spontaneous recovery can take place is a question to which we are not able to reply in the present state of science. Generally it happens in those cases in which the general condition is good, that is to say, where the organism can more successfully oppose the struggle with pathological micro-organism, and in which but little change exists in the lungs, especially of interstitial nature, likewise showing the tendency of the organism to produce the same changes in all organs, and more so in the larynx.

The greater number of those patients in whom the local process in the larynx has been cured spontaneously, belong to favourable social conditions ; for this reason we meet with these cases especially in private practice, where general treatment (*hygienic, dietetic*) can be rationally applied in the whole sense of the word. As a proof of the correctness of the above assertion, it may be permitted to me to cite six cases of spontaneous recovery from the private practice of Dr. Sokolowski.

1. G., thirty-three years old, an official. Cough of many years' duration ; hoarseness for many months ; dysphagia a short time ; general state, satisfactory. In the lungs : extensive induration of the right summit. In the larynx : great infiltration of epiglottis (wall-like). Little infiltration of the posterior region. Every year frequent treatment in the mountains. Afterwards : deglutition good—*entire cicatrization of epiglottis (cicatric degeneration)*. Duration of observation : four years ; the patient is now under observation.

2. L., aged forty, an official, with hereditary predisposition. Cough for many years. Hæmoptysis ; hoarseness for a week ; general state, good. In the lungs : extensive indurations of both summits. In the larynx : slight ulceration on right processus vocalis. General treatment : living in the forest. Result : *cicatrization of the ulcer*. Duration of observation : four months.

3. D., fifty years old, a merchant. Cough lasting many years ; hoarseness for three months ; little pain in swallowing for a short time ; general state, satisfactory. In the lungs : induration of both summits. In the larynx : ulceration on one third of the anterior part of the left vocal cord. Little infiltration of the posterior part, and ary-epiglottic

folds. Without any treatment : *entire cicatrization of ulcer*. Duration of observation : four years : now under observation.

4. R., twenty-one years of age, a merchant's wife. Cough for a long time ; hoarseness for one year ; general state, almost well (without fever). In the lungs : induration of the right summit. In the larynx : deep ulcerations on the posterior parts of the false cords. General treatment : creosote ; country. Result : *cicatrization of ulcers* ; amendment of general state and lungs. After three years a relapse : infiltration of posterior part. Duration of observation : two years.

5. S., thirty-four years old, an unmarried woman. Cough for four years ; hoarseness ; general state, satisfactory. In the lungs : induration of both summits. In the larynx : on right processus vocalis a little ulceration (two millimètres). Little infiltration of the posterior part. General treatment : creosote ; country. Result : *cicatrization of ulcer* ; voice almost clear. Duration of observation : half a year.

6. S., aged forty-five, a farmer. Cough lasting a long time ; hæmoptysis ; acute inflammation of lungs (pneumonia) two years ago ; dysphagia ; general state, good. In the lungs : induration of both summits. In the larynx : infiltration of epiglottis with ulcerations. No treatment. Result : *cicatrization of ulcers*. Duration of observation up to present time : two years.

In most of the above cases tubercle bacilli were found in the sputa.

The above cases teach us : (1) that the spontaneous recovery of laryngeal tuberculosis is possible (in the first and third cases the cicatrization of ulcers has lasted four years) ; (2) that we should not be too optimistic in the prognosis of this disease, for we can never be sure whether the local process in the larynx may not break out again sooner or later (for instance, in the fourth case, after two years), which generally occurs with deterioration of the general state and progression of the local process in the lungs ; (3) that we obtain the best prognosis in those cases in which there is a good general condition with little or interstitial changes in the lungs, and which cases are placed under suitable hygienic and dietetic treatment, as previously noted.

Heryng³⁵ described eleven cured cases of laryngeal tuberculosis during ten years. The author's observations prove, more or less, the above conclusions : thus mostly relatively little interstitial changes existed in the lungs ; in most cases the general condition was satisfactory, the greater number of the patients were able to undertake a climatic cure ; and lastly, although the recovery of some of these cases lasted a longer or shorter time (in one case, nine years ; in another, four), yet even in these cases a relapse, or fatal termination, could occur, due to the progression of the pulmonary disease, as happened in the above mentioned case after nine years.

Finally, Rosenberg³⁶ also records a case of spontaneous recovery, observed by B. Fraenkel. In this case a very interesting form of stenosis—that is to say, a complete membrane in the larynx—was observed, to which we shall return later on.

If, however, spontaneous recovery, an undoubted proof of curability of any disease, really exists, as regards laryngeal tuberculosis, on the

other hand, there can be no doubt that it occurs very rarely. Thus of seventy cases of laryngeal phthisis, observed in private practice during the last four years, Dr. Sokolowski remarked recovery only in six cases, which makes four per cent. Heryng, as noted before, observed during the period of ten years eleven such cases (it is a pity that the author did not cite the total number of his patients). Precise statistics in this direction would be desirable for the future, in order to determine, if the spontaneous recovery of laryngeal phthisis actually occurs so seldom. If some physicians are still pessimistic as to the curability of laryngeal tuberculosis, as to partial recovery of the local process in the larynx, viz., cicatrization of single ulcers, even these pessimists (Orth) do not deny the possibility of its occurrence. Recently, so many facts proving this partial curability (Orth—*partielle Heilung*) have been recorded, that the most prejudiced ought to be convinced. Especially important becomes the question of local treatment in laryngeal tuberculosis: in all cases the cicatrization of single ulcers having been obtained in this way. In certain cases the process of cicatrization of ulcers was affirmed by means of precise microscopic examinations, as in the case of Heryng,² where, during life, cicatrization of an extensive ulcer on the posterior part of the larynx was obtained in a patient with fibroid phthisis by means of local treatment, lactic acid and curettement, which after death was completely proved by detailed histological examinations.

Again, the same event occurred in the case of Seifert³⁷—cicatrization of ulcer during life with local treatment, after death also proved by microscopic examination. Krause³⁸ showed, at the meeting of the Medical Society in Berlin, a larynx with cicatrization of ulceration, obtained under the influence of lactic acid, which was entirely affirmed by Virchow.

Applying the combined method (lactic acid, surgical treatment, galvano-cautery), we obtained in two cases entire cicatrization of tubercular ulceration in the posterior part of the larynx, which also was affirmed by anatomico-pathological examination. In both these cases, however, near the cicatrization, deep ulcerations also existed somewhere, penetrating towards the cartilage.¹

The same occurred in the case described by Virchow,³⁹ where, in a man with fibroid phthisis (at the necropsy) a distinct cicatrix was found on the vocal cord, but near it deep ulcerations (this case Virchow supposes to be spontaneous recovery).

The above cases (with necropsy) convince us, on one hand, of the possibility of cicatrization of tubercular ulcers in the larynx, under the influence of lactic acid: on the other hand, they show how careful we must be in the prognosis of such cases. We must not forget that the cicatrization of single tubercular ulcers is not the recovery of laryngeal tuberculosis, for we cannot be sure if the ulcerative process in some other place, not attainable for local treatment, may not develop in the course of the disease. In these cases one fact is worth noticing, viz., that changes of especially interstitial character existed in the lungs. To

¹ See table of Surgical Treatment.

this circumstance we have already drawn attention, in speaking of the spontaneous recovery of laryngeal tuberculosis.

The partial recovery of laryngeal tuberculosis, viz., cicatrization of single ulcers, obtained by means of local treatment, is undoubted. As, however, recovery from laryngeal phthisis is, as we have said, the rarest of phenomena, so cicatrization of single ulcers happens relatively often, as is proved by clinical observations lately published, thanks to the improved methods of local treatment of laryngeal tuberculosis (Krause, lactic acid; Heryng, Schmidt, surgical treatment).

Thus, of thirty-five cases of tubercular ulcers in the larynx, Heryng² obtained, with local treatment, cicatrization, lasting a longer or shorter time in twenty-seven cases. In fifty cases of laryngeal phthisis we have obtained more or less distinct cicatrization of ulcers in twenty-one under local treatment, either by means of brushing with lactic acid or by the combined method (lactic acid, surgical treatment, etc.).¹

We have already mentioned, speaking of the curability of laryngeal phthisis, that spontaneous recovery occurs, especially in private practice, in connection with—(1) good social conditions under which such patients are living (the possibility of climatic treatment, good nourishment); (2) the long time during which such patients can be observed. (In one case of Heryng's, for instance, the observation lasted nine years; in two cases of Sokolowski's, four years.)

In hospital practice, especially with us, these two conditions are wanting, and for this reason we cannot speak of recovery of laryngeal phthisis in the hospital. In clinical practice we can only expect partial recovery of the tubercular process in the larynx—the more so, in that continual infection is possible, arising from the affected lung being under exceeding unfavourable conditions, which renders the treatment difficult.

That this is the case is proved by twenty-one cases of partial or entire cicatrization of ulcers, obtained by us exclusively in hospital practice. But it is without the least doubt that spontaneous recovery of laryngeal tuberculosis, as well as that obtained by local treatment, is much easier and oftener obtained in private practice, where there exists a whole series of conditions favourable to recovery.

Let us not forget another, and, perhaps, the most important, condition, which is exclusively met with in private practice—I mean the period of the disease at which the patients seek our assistance, namely, the commencement of the pulmonary as well as of the laryngeal affection. The hospital physician very rarely meets with patients at this stage. Hospital patients remain, also, too short a time under our observation: for this reason we cannot regard these cicatrizations as constant symptoms. As an illustration, I may be permitted to cite four observations from the private practice of Dr. Sokolowski, where, thanks to the local treatment, the cicatrizations of tubercular ulcers obtained constantly existed a longer or shorter time.

1. S., twenty-three years old, apothecary. Cough a long time:

¹ See Tables of lactic acid and surgical treatment.

hæmoptysis and hoarseness for three months; dysphagia latterly; general state, satisfactory. In the lungs: induration of both summits. In the larynx: slight swelling of posterior part; ulceration on left processus vocalis: after two years, a relapse in the same place. General and local treatment: creosote, inhalation of carbolic acid, cauterization with lactic acid. Result: after two months, *cicatrization of ulcer*; amendment in the lungs and general state. After two years, a relapse; then cicatrization again. Duration of observation: four years.

2. E., forty-two years of age, a merchant's wife. Hereditary predisposition; cough and hoarseness for nine months: general state, very good. In the lungs: at both summits, slight changes (indurations). In the larynx: swelling of posterior part; extensive ulcerations in the neighbourhood of left vocal process. Local treatment: lactic acid. Result: after two months, *cicatrization of ulcer*; slight hoarseness. Duration of observation one year.

3. M., twenty-eight years old, a physician. Cough a long time: for one month, hoarseness; little pain in swallowing; general state satisfactory. In the lungs: at right summit slight changes (interstitial). In the larynx: epiglottis very much infiltrated; a little moveable. On anterior surface of epiglottis, superficial ulcerations: little swelling of both ary-epiglottic folds. Local treatment: brushing with lactic acid during two months. Result: *entire cicatrization (cicatric degeneration) of epiglottis*; grew stout. Observed for one year and a half (and now under observation.)

4. F., aged forty, an official. Six years ago, pneumonia; cough; hoarseness for many years: general state, good. In the lungs: indurations at both summits. In the larynx: in the neighbourhood of left processus vocalis a little ulceration. Local and general treatment: nitrate of silver (brushing during six months). Climatic cure. Result: *cicatrization of ulcer*; general state, excellent. Duration of observation: three years (last examination in June, 1888).

In all these cases the general state was satisfactory, in the lungs existed slight and especially interstitial changes. That cicatrization of tubercular ulcers, obtained by means of local treatment, ought not to be considered constant is proved by the first case, in which, after two years, on the former cicatrix a process of the same character (tubercular ulcer) developed again, although it came to a standstill under the influence of repeated local treatment, which seems to prove that in the present case, as well as probably in the remaining three cases, there existed a tendency to the production of connective tissue in the lungs and in the larynx. The local treatment was probably here only one of the agents favouring this natural tendency of the organism towards recovery. That such reaction undoubtedly exists in certain organisms is proved by the fact, that certain forms of laryngeal affections may exist (laryngeal tuberculosis of chronic nature of Ileryng), which may remain relatively a long time (sometimes whole years) unchanged without local treatment, where the organism possesses so much resistance that it is able to counteract successfully too great energy of pathological micro-organisms, until it is at last exhausted, when the destructive process quickly spreads in the lungs and

in the larynx, causing the death of the patient. Dr. Sokolowski observed four such cases in his private practice.

1. K., aged twenty-four, an apothecary. Cough a long time : general state, good. In the lungs : extensive indurations at both summits. In the larynx : commencing infiltration of the posterior part. Climatic cure. Result : *four years st. idem in the larynx*; further dysphagia : infiltration of epiglottis. In the lungs : destructive processes. Death.

2. A., twenty-five years old, tradesman's wife. Cough for many years : hoarseness : general state, good. In the lungs : extensive indurations of both summits. In the larynx : extensive ulcerations on right vocal cord. General treatment (Gleichenberg). Result : *three years after, the same changes in the larynx*; ultimately death, with usual symptoms of consumption of the larynx and lungs.

3. N., aged thirty-six, merchant. Cough a long time : general health, almost well. In the lungs : symptoms of fibroid phthisis. In the larynx : ulcerations on both vocal cords. No treatment. *Three years after, changes in the larynx in statu quo*; later on, deterioration of general condition, lungs, and larynx.

4. T., thirty-eight years old, a merchant's wife. Cough for eight years ; hoarseness for four years ; general state, satisfactory. In the lungs : interstitial phthisis. In the larynx : ulceration on posterior region. *Four years after, in the larynx the same changes*; afterwards death, with symptoms of deterioration in larynx and lungs.

Summing-up as to the curability of so-called laryngeal phthisis, we must arrive at the following results :—

1. The curability of laryngeal tuberculosis, from both anatomical and clinical standpoints, must be considered as positively proved.

2. The recovery of laryngeal phthisis is, however, a rare phenomenon. In most cases a relapse of the laryngeal disease takes place, usually in connection with deterioration of general health and the pulmonary process.

3. The partial recovery of laryngeal tuberculosis—viz., cicatrization of single ulcers is a relatively frequent phenomenon.

4. On this frequency the lately improved method of local treatment of laryngeal phthisis has had great influence.

5. Certain micro-organisms possess reactionary power in a greater degree—viz., resistance to pathological causes (tubercle bacilli), showing probably the tendency of the organism to the production of connective tissue in all organs (lungs, larynx).

III.—THE LOCAL TREATMENT OF LARYNGEAL TUBERCULOSIS.

The time of therapeutic nihilism in regard to laryngeal phthisis has disappeared to return no more. After having obtained a rational basis in two undoubted facts : (1) that primary laryngeal consumption exists, although rarely, and (2) that this disease is undoubtedly curable, local treatment (especially surgical), although it forms one of the youngest developments of general treatment, gains a greater and greater number of adherents among the principal representatives of laryngology, and is rapidly advancing to greater improvement.

With the development of local treatment of laryngeal tuberculosis are

intimately connected the names of Schmidt and Heryng (laryngeal surgery), Krause (lactic acid), and lastly, Jellinek, who, having introduced cocaine into laryngeal treatment, rendered valuable service by making possible the application of more energetic operations to the larynx. For this reason I shall more fully speak of this remedy.

(A.) *Cocaine*.—As chloroform in surgery, so cocaine in laryngology, establishes an epoch. From the time of its application to diseases of the upper air passages (nose, larynx) commences the great progress of laryngeal surgery, thanks to the anæsthetic properties of this drug. Moreover, cocaine in laryngeal phthisis possesses its particular application as an excellent analgesic remedy in the painful, difficult swallowing of these patients. Although Jellinek, assistant to Schrötter, in Vienna,⁴⁰ was the first who introduced this drug to laryngology in the year 1884, yet looking over the voluminous literature regarding this remedy, it is evident that before Jellinek cocaine was tried, although it did not then attract general attention.

In the year 1869, Fauvel, in Paris,⁴¹ successfully applied cocaine. Further, in 1879, Anrep, cited in the work of Rossbach,⁴² referred to the anæsthetic action of cocaine. Two years before Jellinek (1882), Labord,⁴³ published in the *Tribune Médical* his experiments with coca and cocaine. Leaving aside the question of priority as to the application of cocaine in laryngology, we shall now pass over to the action, application, and negative properties of this remedy.

Jellinek applied cocaine in solutions often and twenty per cent. Some authors, as Godhart,⁴⁴ Geo. Major,⁴⁵ Lefferts,⁴⁶ and Audhui,⁴⁷ employ very weak solutions (4—5 per cent.), considering them quite sufficient to produce an absolute anaesthesia. But most laryngologists employ much stronger solutions, as for instance Morell Mackenzie,⁴⁸ who applies twenty per cent. in cases of painful swallowing in phthisical patients; yet our experience, as well as that of others, shows that in these cases weaker solutions (fifteen and ten per cent.) are generally sufficient, but in cases of endo-laryngeal operations a solution of cocaine of less than twenty per. cent. will not produce sufficient anaesthesia. In these cases we constantly employ a solution of twenty-five per cent., which is quite sufficient, although there exist very rare cases (we, however, have observed them) where repeated brushings of the larynx, with strong solutions (25 percent.) are not able to render the larynx entirely anæsthetic. These cases, in our opinion, must be regarded as having a particular idiosyncrasy. Of this opinion are also Schoth,⁴⁹ Stoerk,⁵⁰ Schöffers,⁵¹ Myerson,⁵² etc. How long does the anæsthetic action of cocaine last? As to this question the opinions of authors widely differ. Jellinek thinks it to be from five to ten minutes, Morell Mackenzie two hours, Heryng fifteen minutes to several hours (yet after half an hour this action becomes weaker). Stoerk regards it as from two hours to two hours and a half. We tend more to Geier's⁵³ opinion, who made precise, suitable experiments with Jurasz in Heidelberg. The author regards the period of anaesthesia to be from fifteen to twenty minutes. We must also make a difference between absolute anaesthesia of shorter duration (some minutes) and relative, which can last two hours. Further it depends on the concentration of the solution employed.

How quickly does anæsthesia of the mucous membrane of the upper air passages appear after applying cocaine?

The greater number of authors (Jellinek, Geier) maintain that it takes place very quickly, from one to two minutes; Morell Mackenzie about ten minutes. According to our own experience, it seems that not before three to four minutes after brushing does complete anæsthesia appear.

The method of applying cocaine differs. It is generally applied alone by means of brushings. Schnitzler,⁴¹ in laryngeal tuberculosis, employs brushing of cocaine with morphia, or insufflations of pure cocaine, likewise with morphia, or with some other drug (plumbum aceticum, Magisterium Bismuthi). This author also applied cocaine in form of inhalation (0.5 : 2500, Aq. dest.), and Heryng uses it as a gargle (gr. xvi-3vj.) Besides pure watery solution of cocaine, generally employed, there exist others, for instance, Jellinek employs the following forms: one part of cocaine in two parts of alcohol and eight (or three) of aqua dest.

Piniaczek, of Cracow, and later Heryng, introduced cocaine injections of ten per cent. into the sub-mucous tissues of the larynx, by means of Krause's syringe. Heryng usually injects in two places, two or three, increasing up to ten drops (which is equivalent to one grain of cocaine, that is to say, one-fourth part of the contents of the syringe). In order to avoid intoxication the author adds a solution of two per cent. of carbolic acid.

(℞. coc. mur. 0.25 : gr. jv.)

Sol. ac. carb. 2 per cent. 2.5 (3jj). S. the injection.)

This author mostly applies injections into the posterior region of larynx (swellings, ulcerations), piercing the needle half centimètre deep (in the epiglottis also). Injecting it into the posterior part, the author remarked anæsthesia at the same time of the mucous membrane of the throat, uvula, and soft palate. The anæsthesia of the larynx lasts from three to four hours, beginning some minutes after the injection. As to the merits of this method the author reports as follows: (1) Limitation of anæsthesia to certain regions and spontaneous graduation. (2) The anæsthesia lasts longer. (3) Great economy (about one grain per dose), which, having regard to the high price of this remedy, is not without importance. (4) In ulcerations of the œsophageal surface of the posterior part of larynx (which the author was able to prove at the necropsy) injection of cocaine may ease the pain, while brushing the interior of larynx is fruitless in these cases. Lastly, (5) it facilitates laryngoscopic examination, thanks to the partial anæsthesia of the neighbouring parts (throat).

Besides Piniaczek and Heryng these injections were employed by Fraenkel, who confirmed Heryng's result. Of the advantages of this method we are not able to say anything, as we have no personal experience as to how cocaine hydrochlorate is generally used. We do not apply other kinds (salicylate, benzoate). As to the quality of cocaine, experience shows that the best preparation is of Merck's manufacture. The cocaine of other manufactures (Scherring, Jaffe) is indeed cheaper, but not so good. In a prescription the manufacturer's name should be mentioned. Lately the price of cocaine, at first exceedingly high, has diminished very much.

Baumgarten, of Buda-Pest, ² uses cocaine as a diagnostic accessory:

hyperæmia and secondary swellings disappearing under cocaine, infiltration however of vocal cords remaining without change. In cases difficult of laryngoscopic examination in irritable patients, cocaine in weak solutions (ten to fifteen per cent.) is an excellent accessory.

There are very few physicians who do not speak favourably of cocaine. These more especially belong to the Italian school, represented by Massei, of Naples,⁵⁶ and Massucci.⁵⁷ We shall show later on that the same school also condemned lactic acid. It is possible that the cocaine used by these authors differed in quality from that of Merck's manufacture. Opponents are also found in Seifert, of Würzburg,⁵⁸ Fronstein, of Moscow,⁵⁹ and Tauber.³⁴ The latter author advises instead of cocaine the following mixture:—℞. ac. carb. 6,0, Tinct.-iodi. 15,0, glyc. 8,0.

It is remarkable that such an author as Solis-Cohen doubts of the possibility of complete anæsthesia of the mucous membrane of the larynx by means of cocaine in cases of endo-laryngeal operations.

Cocaine is not one of the most agreeable remedies. Patients do not very willingly consent to its application, complaining especially of the disagreeable bitter taste in the mouth, the disagreeable sensation of astringency, dryness in the throat, sensation of a foreign body, &c. These, however, are but trifling objections, which by no means discredit this remedy. But, latterly, more and more objections are raised, which seem to prove that this drug is not so innocent, since it can produce acute intoxication. Amongst these cases are those of:—

1. Bresgen,⁶¹ who upon himself and his wife proved the poisonous action of cocaine (15 alcohol.).

2. Heymann,⁶² after brushing the throat and larynx with cocaine (15 aq. d.), in the case of a boy nine and half years old.

3. Havilland Hall,⁶³ in the case of a nervous woman, aged fifty-six during an operation for nasal polypi (ten per cent. spray of cocaine), where the fluid penetrated into the throat.

4. George Bock,⁶⁴ with injection of cocaine into the gum in order to extract a tooth.

5. Gourand,⁶⁵ in the case of a healthy young man after several brushings of hypertrophic tonsils with four per cent. solution of cocaine (in all sixteen grains of cocaine were used).

6. Stadler,⁶⁶ in a woman, aged twenty-five, after extraction of a decayed tooth, brushing the gum with twenty per cent. solution of cocaine (undoubtedly pure).

7. Modrzejewski, of Warsaw,⁶⁷ in a woman, thirty-two years old, symptoms of intoxication after having dropped into the ear two or three times daily eight drops of cocaine (four gr. 5j aq. dest.).

8. Szuman, of Thorn,⁶⁸ in a young lady, aged twenty, after subcutaneous injection of ten per cent. cocaine.

9. B., of Warsaw, cited in the above article of Szuman, four per cent. solution of cocaine applied to the ear of a boy.

10. Sokolowski,¹ who in his practice observed the following case of intoxication with cocaine:—A healthy man, aged thirty, was almost

¹ Not before published.

strongly cocaineized (twenty per cent., Merck's cocaine), in order to extract a laryngeal polypus. After the operation pallor suddenly appeared, irregular breathing, with quick and uneven pulse after two minutes, and slight clonic contractions of the whole body. After application of stimulant remedies this state passed quickly away. During the whole day the patient felt great weakness, loss of appetite, together with general depression. Next day the patient felt quite well.

The symptoms, appearing during acute intoxication by cocaine, described by all the above authors are : weakness, staggering gait, giddiness, fainting, sleeplessness, temperature a little increased (in the case of Heymann), loss of appetite, spasms, contractions in hands and feet (in the cases of Durand and Sokolowski). Seiffert reports another symptom, as constant during cocaine intoxication, namely, sensation of enlarged incisor teeth. The same author mentions that he saw profuse bleeding after operations, where cocaine had been previously used, which he explains as due to secondary dilatation of blood-vessels after previous contraction.

Heryng mentions slight temporary symptoms after brushing with strong solutions of cocaine, especially after having swallowed the saliva, such as : paleness, fainting, trembling of hands, weakness, uneasiness ; these symptoms, however, generally disappear quickly by themselves, or after taking wine. But in the above cited cases the symptoms were more threatening, lasting longer for instance, in the case of Heymann for about five hours.

An excellent remedy for cocaine intoxication was found in amylnitrite (George Bock), the vapour from a few drops on cotton being inspired. According to Ziem,⁶ intoxication can occur not only from the passage of cocaine into the throat (during operations of the nose), but also directly through the absorption from the mucous membrane of the nose. Trials in order to replace cocaine by other drugs have been made ; thus Gouguenheim⁵ proposes caffeine and Claiborne stenocarpin, but these remedies have not hitherto found adherents.

Menthol is recommended by Rosenberg.

We may conclude as follows :—

1. Cocaine is a drug which cannot be replaced as an anæsthetic and analgesic in the treatment of diseases of the throat and nose generally, and of laryngeal tuberculosis especially.

2. In applying cocaine we must observe certain precautions in reference to the possibility of acute intoxication. We must, however, add here, that we personally have never observed such intoxication, or even slight symptoms of poisoning, notwithstanding the very frequent use of cocaine, especially in hospital practice.

(B.) *Drugs, especially Antiseptic, locally applied in Laryngeal Tuberculosis.*—Since the time of Koch's immortal discovery (1882) of the nature of so-called pulmonary consumption (tubercle bacilli) the physician's efforts have been continually directed to the discovery of a drug which will extirpate this dreadful enemy of mankind. Hence the efforts towards a rational antiseptic treatment of pulmonary as well as of laryngeal phthisis : hence the enormous number of antiseptic drugs lately introduced into the

treatment of pulmonary and laryngeal tuberculosis. The greater part of these drugs have disappointed the expectations entertained respecting them, but a few have attained more or less success.

1. *Lactic Acid*.¹—Prof. Schrötter, in his latest manual of diseases of the throat, larynx, and nose, page 163, expresses himself about this drug as follows:—"Hitherto I have not known another remedy with which I had succeeded in obtaining so many amendments, and such a relatively great number of cures." It is without the least doubt that a drug which has been able to satisfy such a conscientious enquirer as Schrötter has undoubtedly merited it. Indeed, from the time when Krause,⁷⁰ in 1885, published his first experiments upon this drug, the number of its adherents has enormously increased, amongst whom we may mention Jellinek,⁷¹ George Major,⁷² Braun,⁷³ Gouguenheim,⁷⁴ Schmiegelow,⁷⁵ Rosenfeld,⁷⁶ Betz, Gottstein,⁷⁷ Heryng,⁷⁸ Sokolowski,¹ Przedborski,¹ Oltuszewski,⁷⁷ Wróblewski,⁷⁸ etc.

On the other hand, as always happens, lactic acid has also its opponents, amongst whom are Schnitzler,⁷⁴ Lublinski,⁷⁵ Boecker, and Heymann,⁷⁶ and especially the representatives of the Italian school Massei,⁷⁹ and Masini.⁸⁰ Before I come to the special therapeutic properties, and manners of application of this drug, I present in this place the results of my own experiments, with this drug in thirty-four hospital patients (in the clinic of Dr. Sokolowski). In these cases lactic acid alone was applied, in the remaining sixteen cases of a total number of fifty patients, locally treated, lactic acid was combined with other methods (surgical treatment, etc.), these cases will be described in another place.

Let us now analyse our cases. Of thirty-four cases, in nine we obtained no amendment, neither subjective nor objective; in the remaining twenty-five cases we were able to remark a more or less favourable effect, produced by lactic acid (*i.e.*, in 73·5 per cent.). Of these latter, in seven cases the amendment was limited to the diminution or cession of subjective symptoms (hoarseness, difficult or painful swallowing), so that it was merely a relative amendment—subjective. In the remaining eighteen cases, the amendment was also objective. In eight of these cases, it was fair (diminution of infiltrations, lessening of ulcerations) in the remaining ten cases, we were able to remark a more or less distinct cicatrization of ulcers (in two cases confirmed by necropsy). The number of cicatrizations in our cases (ten out of thirty-four, that is to say, 29·4 per cent.) is seen to be less considerable than in the observations of other authors. Oltuszewski, in a total of nine cases, obtained recovery, *viz.*, cicatrization of ulcers in six of them. Heryng, out of twenty cases of laryngeal tuberculosis, had seen complete recovery in two, and very great amendment in eight. Let us examine in which cases we failed to obtain any amendment by lactic acid. At first the observations were of too short duration (from four days to two weeks); further, the number of brushings was very small (from one to five); and in the greater number of these cases considerable changes existed in the lungs (destructive form), the general

¹ Lactic acid, according to experiments upon animals, which were inoculated with tuberculosis by Sormann and Brugnatelli, is rather destructive to tubercle bacilli (*see* Heryng's work.⁷⁶)

state was mostly bad, there were hectic symptoms, and in the larynx, in most cases, considerable changes were present (for instance, in the thirteenth case, etc.). In two cases, the larynx and throat were very much affected. In these cases, however, where, thanks to the lactic acid, we obtained more or less amendment, the conditions were more favourable, viz., longer observation (in one case, five and a half months), and longer application of lactic acid (in one case, thirty brushings). In most cases, changes in the lungs were not extensive; these were especially interstitial, and the general condition was more or less satisfactory, viz., absence of the fever and other hectic symptoms, generally accompanying the caseous, destructive form of pulmonary phthisis. In many cases, indeed, the changes in the larynx were more or less remarkable, and in some cases at the same time the changes in the lungs were extensive; but in these cases the amendment was especially seen in the subjective symptoms, although in one case, in spite of these unfavourable conditions, we obtained with lactic acid, partial cicatrization of ulcers.

It seems to be the case that even in most unfavourable conditions we can even in the worst cases obtain relief for the patient by facilitating deglutition—the most troublesome symptom of the patient. From the above experiments there seems to be undoubted proof of what we have emphasized previously as to the curability of laryngeal tuberculosis, viz., where the general condition is satisfactory, where slight or interstitial changes exist in the lungs, where we may presume that there is a natural tendency on the part of the organism to the production of connective tissue—a conservative process obstructive to the vital energy of pathological micro-organisms—here, I repeat, local treatment, especially by lactic acid, favouring nature, may do much good, and sometimes heal the local process in larynx. But that we must not be deluded too much, as to the permanence of such recoveries, goes without saying. Recurrences take place not rarely in the immediate or distant future, as the patient, having recovered from laryngeal tuberculosis, falls a victim to pulmonary phthisis.

To return to lactic acid.

As already noted, Krause was the first, in the year 1885, to introduce lactic acid into the therapeutics of laryngeal tuberculosis, basing his observations upon experiments of Moosetig-Moorhof upon lupus, which showed that lactic acid acts energetically upon pathological tissues, but at the same time has no effect upon sound tissues. As regards the mucous membranes, lactic acid does not seem to be so innocent, especially in strong solutions. Jellinek⁷⁶ had already drawn attention to this. According to him, irritation of sound mucous membranes undoubtedly occurs, yet without disintegration of the epithelium. Krause applied lactic acid in the form of brushings, commencing with weak solutions (10 per cent.); passing quickly on to stronger solutions (50, 60, at last 80 per cent.). Latterly we have applied lactic acid in solutions of 25, 50, 75, and 100 per cent. (pure acid). We begin always with weak solutions, as we cannot say how the organism will react, applying them every second day, or even every day, passing to stronger solutions after some days.

Occupation.	Anamnesis.	General state.	Tubercle bacilli.	The state of the lungs.	Laryngoscopic appearance.	Local treatment.	Subjective symptoms.	Objective symptoms.	Result of treatment.	Duration of observation.
1 24 Joiner	Diathesis pneumonia Well many years ago	Well	Present	Slight changes (in- durations)	Hoarseness, little swelling of post. part. Marginal ulcerations on left vocal cord.	5 brushings with lactic acid (25-75%). Burning	Less hoarseness...	Commencing cicatrization of ulcers	Great amendment	... 3 weeks.
2 23 Groverness	Two years ago (pre-moryphus, now cough)	Satisfactory	Present	Indurations at both summits	Dysphagia. Excrecentia (ulcer) on post. part. Infiltration of right vocal cord.	12 brushings with lactic acid (25-75%). Burning	Swallowing good.	Cicatrization of ulcer	Recovery of the laryngeal condition	... the 1 months.
3 31 Official	Haemoptysis-syphilis. Almost well	Well	Present	Cavities at both sum- mits	Dysphagia. Great infiltration of epiglottis with ulceration	6 brushings with lactic acid	Good swallowing.	Commencing cicatrization of ulcer	Great amendment	... 1 month.
4 2 Telegraphist.	Alasas in Parchoe Good	Good	—	Indurations on both summits	Dysphagia. Ulcer on posterior part.	13 brushings with lactic acid	Less hoarseness...	Beginning cicatrization of ulcer.	Great amendment	... 2 weeks.
5 2 Official	Hereditary predilection Well	Well	Present	Very slight changes in both summits	Dysphagia. Infiltration of post. part. Ulcer on infiltrated left false cord	13 brushings with lactic acid	Improvement in swallowing	Ulcers beginning to cicatrize	Great amendment	... 1 month.
6 38 Shoemaker	Diathesis ... Well	Well	Present	Indurations at both summits	Dysph. Hoarse. Infiltration of false cords and post. part. Ulcers on vocal cords.	38 brushings with lactic acid (25-100%).	Voice almost clear. Good swallow- ing	Ulcers beginning to cicatrize. Less infiltration	Great amendment — Return and death (in larynx extensive ulcers)	... 5 1/2 months.
7 2 Mercant	Syphilis many years ago	Well	Absent in examinations	Very slight changes.	Dysph. Infiltr. of post. part and epigl. Ulcer of epiglottis	Kali iodatum. In- jections of Hig. C2, without suc- cess. 12 brushings with lactic acid	Good swallowing.	Cicatrization of ulcer	Recovery	... 2 months.
8 2 Farmer	Cough for many years Bad(nephritis).	Bad	—	Indurations at both summits	Ulcer of tongue (on summit). Infiltr. of post. part, ulcer on right vocal cord	3 brushings with lactic acid (Ulcer on tongue)	—	Ulcer on the tongue begins to cicatrize.	Death. Commencing cicatrization of ulcer	... 1 month.
9 28 Joiner	Diathesis ... Bad	Bad	—	Cavities at both sum- mits	Dysphagia. Infiltration of false cords (on left, ulcers)	3 brushings with lactae (Great burning).	Swallowing good.	Ulcers beginning to cicatrize	Death: some ulcers beginning to cicatrize	... 1 month.
10 4 Musician	Haemoptysis (in an- tiliary) 13 brushings of lactic acid successfully	Sat- isfactory	—	Changes, especially interstitial of sum- mits	Marginal ulcerations on both vocal cords. Little infiltr. of epigl. and post. part.	12 brushings with lactic acid	Less hoarseness...	Cicatrization of ulcers	Recovery	... 5 weeks.
11 55 Priest	Haemoptysis ... Well	Well	Present	Very slight changes at both summits	Dysph. Infiltr. of epigl. Marginal ulcerations on vocal cords. Ulcer on post. part	1 brushing with lactic acid	Dysphagia and ulcers without changes	No amendment	... 1 days.	
12 32 Workman	Cough for many years Bad	Bad	—	Great changes at both summits (destr.)	Dysph. Infiltr. of epigl. Marginal ulcerations on vocal cords. Ulcer on post. part	2 brushings with lactic acid	Without change	Death: in larynx extensive ulcers	... 1 week.	
13 40 Bricklayer	Cough for two years. Almost well	Well	—	Indurations at both summits	Dysph. Ulcers of epigl. (trace of 10). Ulcers on false cords. In- filtration of post. part.	5 brushings with lactic acid	Without change	No amendment	... 2 weeks.	
14 35 Gardener	— Bad	Bad	—	Indurations at both summits	Extensive ulcerations and infiltrations. Infiltr. of epigl.	3 brushings with lactic acid	Without change	Death: extensive ulcers in larynx	... 2 weeks.	
15 35 Official	Diathesis ... Bad	Bad	—	Cavities at both sum- mits	Dysphagia. Infiltr. of epigl. Ulcer on post. part	3 brushings with lactic acid	Without change	Death: in larynx ulcers penetrating to cartilage	... 2 weeks.	

16 38 Shoemaker	... Hemoptysis ...	... Bad	...	...	Indurations at both summits	Dysphagia. Great infiltration of epiglottis and posterior part of trachea.	brushings lactic acid	with ...	... Without change	... No amendment	... 2 weeks.
17 46 Blacksmith	... Diathesis - hemoptysis	... Well	...	...	Indurations at both summits	Dysphagia. Infiltration of posterior parts and false cords.	brushings lactic acid	with ...	... Without change	... No amendment	... 2 months.
18 27 Student	... Diathesis, syphilis, hemoptysis	... Bad	...	...	Great changes in summits (cavities)	Dysphagia. Hoarseness, infiltration of post. and ventricular bands.	brushings lactic acid	with ...	... Without change	... No amendment	... 4 days.
19 55 Joiner	... Abusus in Baccho	... Bad	...	...	Great changes in summits	Ulcer on right vocal cords.	brushings lactic acid	with ...	... Without change	... No amendment	... 2 months.
20 59 Official	... Abusus in Baccho	... Almost well	...	...	Slight changes in both summits	Ulcer on vocal cords.	brushings lactic acid	with ...	... Without change	... No amendment	... 2 months.
21 26 Workman's wife	... Hereditary predisposition	... Bad	...	...	Great changes in summits	Dysphagia. Great swelling of left arytenoid cartilage.	brushings lactic acid	with Better swallowing (great)	Without change	Death. Extensive ulcers and infiltration of larynx.	1 1/2 months.
22 24 Official	... Diathesis, Hemoptysis	... Almost well	...	...	Indurations at both summits	Dysphagia. Infiltration of posterior parts and false cords.	brushings lactic acid	with Better swallowing	Without change	Subjective amendment	2 weeks.
23 29 Workman	... Diathesis, Abusus in Baccho	... Almost good	...	...	Great changes in summits	Dysphagia. Infiltration of epiglottis and post. part.	brushings lactic acid	with Better swallowing	Without change	Subjective amendment	2 weeks.
24 26 Workman	... Hemoptysis	... Bad	...	...	Slight changes in summits	Dysphagia. Infiltration of epiglottis and post. part.	brushings lactic acid	with Better swallowing	Without change	Death. Extensive ulcers in larynx, trachea, and rt. bronchus.	5 weeks.
25 24 Messenger	... Diathesis, Hemoptysis, Pneumonia	... Almost good	...	...	Commencing destruction at summits	Dysphagia. Great infiltration of epiglottis.	brushings lactic acid	with Swallowing well	Without change	Subjective amendment	2 months.
26 14 Soldier	... Diathesis, Hemoptysis	... Bad	...	...	Cavities at summits	Dysphagia. Infiltration of posterior part.	brushings lactic acid	with Good swallowing	Without change	Death (without crops)	2 1/2 months.
27 46 Postilion	... Diathesis, Hemoptysis	... Bad	...	...	Cavities at both summits	Dysphagia. Great infiltration of epiglottis.	brushings lactic acid	with Better swallowing	Infiltration less	Death. In larynx 3 weeks.	...
28 30 Baker	... Hemoptysis	... Bad	...	...	Indurations at summits	Dysphagia. Inrimula-excrecent (ulcer). Infiltration of ventricular bands.	brushings lactic acid	with Swallowing well	Infiltrations less	Death. Frequent attacks, some leading to cicatrization.	1 1/2 months.
29 47 Dependant	... Diathesis	... Almost well	...	...	Indurations at summits	Dysphagia. Infiltration of epiglottis.	brushings lactic acid	with Swallowing better	Infiltration less	Fair amendment	3 weeks.
30 52 Tailor	... Diathesis	... Almost good	...	...	Cavities, especially at summits	Dysphagia. Great infiltration of epiglottis and post. part.	brushings lactic acid	with Better swallowing	Infiltration less	Fair amendment	1 month.
31 46 Farmer	... Hereditary predisposition, Hemoptysis, Pneumonia	... Satisfactory	...	...	Induration at summit	Dysphagia. Infiltration of epiglottis and post. part.	brushings lactic acid	with Better swallowing	Infiltration of epiglottis less	Fair amendment	2 months.
32 15 Songstress	... Diathesis	... Almost good	...	...	Cavities at both summits	Dysphagia. Infiltration of posterior part and ary-epiglottic folds.	brushings lactic acid	with Good swallowing	Less infiltration	Fair amendment	2 1/2 months.
33 34 Saddler	... Hemoptysis, Abusus in Baccho	... Bad	...	...	Great changes in summits	Dysphagia. Great infiltration of epiglottis and post. part.	brushings lactic acid	with Better swallowing	Less infiltration	Death. In larynx 1 month.	...
34 38 Farmer	... Diathesis, Hemoptysis	... Bad	...	...	At both summits cavities	Dysphagia. Infiltration of epiglottis with ulcerations.	brushings lactic acid	with Better swallowing	Ulcer a little less and cleaner.	Fair amendment	3 weeks.

As to the incidental disagreeable symptoms produced by this drug, we especially find a sensation of burning—sometimes very severe, and of long duration (sometimes several hours) ; it is a symptom exceedingly disagreeable to the patients. Application of cocaine (10 to 15 per cent.) will, although not entirely, ease this burning. This symptom Krause had already mentioned. Rosenberg goes too far in saying that the principal obstacle to the use of lactic acid is its painful application, which cannot be lessened by cocaine. Schrötter, however, is of opinion that, although the application of cocaine is not without pain, yet he has not seen any case in which cocaine did not ease this symptom. Some authors mention spasm of the glottis resulting from the application of lactic acid. The same has occurred to us, although very seldom, as well as in the application of other drugs (for instance, in one case of chronic laryngeal catarrh, which has been under our observation, every brushing with nitrate of silver of 1 to 10 per cent. produced great spasm of glottis). In these cases there undoubtedly exists a kind of idiosyncrasy. We must not forget that a badly performed operation (viz., brushing) may in certain cases produce spasm of the larynx, and, according to Heryng, this especially occurs when (1) the fluid runs into the trachea (in too abundant wetting of the brush) ; (2) we introduce the brush too far under the cords, viz., into the inferior part of the larynx ; (3) we irritate too much the posterior region of the larynx with the handle of the brush.

Krause mentions that after applications of strong solutions of lactic acid (eighty per cent.), there always is a formation of scurf, sometimes very difficult to distinguish from secretion, covering ulcerated or infiltrated surfaces. Schrötter also mentions the formation of a scurf. We have, however, rarely seen this effect, although we have directed great attention to it (for instance, applying pure acid in cases of pharyngeal tuberculosis). Oltuszewski also rarely saw any formation of scurf.

As to the action of lactic acid upon tubercular-degenerated tissues.

According to Krause this action is seen in diminution of infiltrations, clearing of ulcerations and formation of sound granulations, and finally their cicatrization. This author reports that ulcers, situated on the posterior part of the larynx, are most resistant to the effect of lactic acid. Jellinek saw the best results generally in cases of recent small superficial ulcerations, but, in extensive ulcers, lactic acid remains unsuccessful even after some months of application of this remedy. From our own experience we cannot confirm the last statement of Jellinek. We have several times seen cicatrization of extensive ulcerations, especially on the ventricular bands, obtained with lactic acid. Jellinek further reports that lactic acid quickly acts on the soft infiltrations, but slowly on the plastic ones, with which we entirely agree, adding from our own experience that the hard infiltrations require previous scarifications. Lactic acid, afterwards rubbed in, has a much more favourable influence upon the absorption of these infiltrations. Speaking generally, as Heryng justly remarks, lactic acid seems to be more useful in ulcerative than in infiltrative processes. According to Heryng, lactic acid does not act identically on all kinds of ulcers, thus we find craterform ulcers more difficult to treat

and prone to recurrence. But Schrötter very justly remarks, that precise indications for lactic acid are very difficult to state; extensive ulcers often heal, while superficial ulcers sometimes do not submit to the treatment.

From our own experiments, we should be inclined to suppose that lactic acid had especially a favourable action in cases of ulceration of the false as well as of the true vocal cords, while in ulcerations of the epiglottis and posterior regions this drug is less useful. The same might be said of infiltrations, on which lactic acid seems to have no favourable influence. According to most authors (Heryng, etc.) we cannot regard lactic acid as a specific, as Krause² regards it, when he says that "no tubercular ulcer opposes cicatrization by means of lactic acid" when the general condition is satisfactory, and a suitable technique is employed, adds the author. We entirely endorse Schrötter's opinion, cited above.

After having tried almost all drugs in the Hospital of the Holy Ghost, we are obliged to acknowledge, that of all the remedies lately introduced into the therapeusis of laryngeal tuberculosis, priority must positively be given to lactic acid. We have not seen any wonderful results ourselves, yet very often, more or less distinct amendment, and sometimes cicatrization of ulcers. Almost always this drug diminishes, or causes cessation of the difficult and painful swallowing, as we can convince ourselves from the above cases. Blindermann⁴ mentions that in the ambulatorium of Jurasz, in Heidelberg, although he never saw a case of complete recovery, yet he could remark considerable amendment after several days treatment by lactic acid. I shall not discuss the technique of the application of lactic acid in laryngeal tuberculosis; no description can equal what we observe for ourselves. I shall only add, that the brushing must be energetically applied; we must rub lactic acid into the ulcerated place very thoroughly. The wad of the brush (we do not use a hair-brush) is often coloured brown—the result of mixture of lactic acid with bloody secretion. I should, however, like to draw attention to one fact, greatly facilitating the application of lactic acid to the tubercular degenerated epiglottis. We know very well from experience how difficult the local treatment of the epiglottis is, on account of the uncommon yieldingness of this organ—frictions with lactic acid are not easy. Perhaps it is due to this, that affections of the epiglottis appear to be more resistant to lactic acid. But in some cases the larynx is so highly situated, that by means of strong depression of the basis of tongue we can see the whole epiglottis distinctly. In these cases (not rare) application of lactic acid can justly be made without laryngoscopy, and it is these cases in which we have obtained the best results from lactic acid.

Finally, we must mention the application of lactic acid in the form of parenchymatous injections. Heryng was the first who employed this method in the treatment of tubercular infiltrations of the larynx. (1) In cases of mushroom growths on the posterior region; (2) in cases of fresh infiltrations of the ary-epiglottic folds; and (3) in cases of recent extensive infiltrations of the epiglottis. By means of Krause's syringe, modified by himself, the author has injected under the mucous membrane at first, strong solutions (thirty per cent.) of lactic acid, to the amount of three to five drops, but on account of the strong inflammatory reaction, he

diminished it to ten per cent. solutions. Of six cases thus treated, he remarked a successful action in one only. Much better results were obtained by George Major,⁷² who employed a twenty to thirty per cent. solution of lactic acid, in doses of five to ten drops, equivalent to three-fourths of a grain in solution. This operation is almost painless, the swellings disappearing after twenty to thirty days, ulcers healing under the application. This author also advises deep penetration, in order to avoid the expectoration of the fluid. We have no experience ourselves with this method. Lactic acid can be also employed in form of inhalations, namely, in solutions of half to two per cent.

(To be concluded.)

ON POSITION AND METHODS OF ANÆSTHETISATION IN NASO-PHARYNGEAL OPERATIONS.

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IN a previous communication to this Journal, I made some remarks upon the choice of anæsthetics in naso-pharyngeal operations. The subject would obviously be incomplete, without some reference to the methods usually adopted, in administering the various anæsthetics alluded to in that article, including, under this head, questions relating to the position of the patient, as well as those concerning the actual inhalation.

POSITION OF THE PATIENT.

This, of course, is determined almost entirely by the surgeon, but the position selected, and, it may be added, the proposed mode of operating, may materially influence the judgment of the administrator, as to the choice of the anæsthetic, and the method to be adopted in its use, and, at the same time, may give him some idea as to the nature of the difficulties which may arise.

RECUMBENT POSITIONS.

(a) *Supine*.—If this position is chosen, the shoulders should be well raised, and the head supported comfortably on a pillow. After the primary anæsthetisation, *i.e.*, before the operation is commenced, the pillow beneath the head may be withdrawn, and the patient so arranged that his head may fall over the end of the couch or bed. Although this manœuvre renders the performance of the operation a little more difficult, it is really of great service, especially in children and thin adults, for by a further slight extension of the neck, the naso-pharynx is placed on a lower level than the mouth, and much blood will escape by the nose. The chief advantage claimed for this position is, that the primary narcosis may be more profound, and the patient is, therefore, more completely

under control. But we are here met with this difficulty—is it better to place the patient very fully under the influence of the anæsthetic, and so abolish all reflex acts, or is it to be administered in only just sufficient quantity to prevent pain, the patient still retaining the power of swallowing accumulated blood and mucus? When ether is the anæsthetic used, I have myself little hesitation in pushing the administration to its extreme limit in these cases, if the surgeon wishes, for with the mouth widely open one can command the glottis, and remove the blood almost as quickly as it collects, and, as I have pointed out in my previous paper, the extreme diffusibility of ether vapour greatly reduces the risk of over-anæsthetisation. When chloroform is used the alternative procedure is, I feel sure, the right one (and I prefer it myself even with ether), although I admit that it is the most troublesome, involving, as it does, extreme vigilance on the part of the administrator.

It must never be forgotten, that the risk in naso-pharyngeal cases depends rather upon over-anæsthetisation than anything else, and the degree of anæsthetisation is not always quite under the control of the administrator, *e.g.*, when impaired expiratory power permits of an accumulation of vapour in the lungs, &c.

The objections to the supine position are, that the nasal obstruction is increased by the falling of the velum palati: that the tongue very readily slips backwards, and, most important of all, that the blood readily accumulates in the upper part of the pharynx and larynx, and this in spite of extreme extension of the neck, in fact much of the blood must either be swallowed or be wiped out with sponges. I cannot say that I have myself ever seen a patient's life placed in actual jeopardy from mere accumulation of blood, but I can quite conceive the possibility of danger arising, and most certainly, it may seriously embarrass the breathing and lead to subsequent trouble, *e.g.*, post operative syncope and apnoea.

(b) *Prone*.—When no general anæsthetic is employed, or if the hæmorrhage were the only difficulty to be contended against, there can be no doubt that the *prone* position would be of great service. With the patient lying on his face accumulations of blood at the back of the throat tend to flow naturally out of the mouth almost as fast as they are formed; not only so, but the tongue, velum palati, &c., fall away from, rather than into, the upper part of the larynx. Unfortunately, however, if a general anæsthetic is used, the dangers attendant upon compression of the chest, and consequent embarrassment of the respirations, render this position almost impossible. Even if this were not the case, the surgeon would have to depend entirely upon the primary narcosis, which would have, therefore, to be very profound, for with an anæsthetic vapour heavier than air, it would be next to impossible to continue its use with any satisfaction during the operation.

Even if primary narcosis is induced while supine, and the patient is then turned on his face, the difficulties are not diminished, while the dangers are obviously increased, on account of the interference with the elimination of the anæsthetic, from the already overcharged lungs and blood.

(c) Primary anæsthetisation on the back, and turning the patient upon the side during the operation, has, from the anæsthetist's point of view,

fewer objections than the absolutely prone position, but its advantages over the supine position are but slight. It is true, that a little more blood may thus be induced to fall out of the mouth, but the amount thus got rid of, is not sufficient to compensate, for the dangers attendant upon the compression of one side of the chest.

ERECT.

(a) *Sitting*.—For slight operations, *e.g.*, tonsillotomy, cauterisations, etc., when profound anæsthesia and complete relaxation are not required, this position is a good one. The chair chosen should be high-backed and with arms, and should, by preference, be covered with velvet (which helps to prevent slipping), or a "dental chair" may be employed. If there is any hæmorrhage the body may be bent well forward, with but slight impediment to the breathing, and the blood will then flow freely out of the mouth. The advantages of this position seem to me to be, that there is less danger of over-anæsthetising the patient: that the mouth may very readily be emptied of unswallowed blood, and that the narcosis can be maintained. The disadvantages are—the tendency of the patient, if deeply under, to slip out of the chair, and the difficulty of wiping out the throat, if excessive hæmorrhage renders such a proceeding necessary.

(b) A modification of the erect position is much in vogue, in such operations as scraping away adenoid growths with the finger. The patient is seated in a chair, with the legs supported, and the body nearly upright; having been fairly deeply anæsthetised, his body is bent well forward, so that his head is over a basin placed between his knees; the operation is then performed, the blood flowing out by the side of the surgeon's finger. I have assisted at many such operations, and think this position an excellent one, and can only regret that, as the bending forward of the body to be of any service must be very decided, and that it is impossible to continue the administration during that period, its applicability to operations about the mouth is practically limited to those mentioned, *i.e.*, scraping adenoid growths.

On the whole I am inclined to think that as far as the anæsthetist is concerned, the possibility, or impossibility, of operating in the erect position, or in the modification of that position above referred to, should always be carefully considered before adopting any other.

METHOD OF ADMINISTRATION.

In order to deal systematically with the question of actual inhalation, I shall refer briefly to the methods I have myself found to succeed best, without claiming for them any marked superiority over methods, which, in other hands, may appear preferable.

Local applications come rather within the sphere of the surgeon than the anæsthetist, and I need not therefore refer further to them.

Nitrous Oxide.—The apparatus used, and the manipulations necessary, are rather too complicated for description in this paper, full details are given in my work on the subject,¹ to which I would refer those interested

¹ A Manual of Nitrous Oxide Anæsthesia.

in the matter. In this particular class of operations, it is of course absolutely necessary to prop the mouth open before commencing the inhalation; in fact, the procedure and degree of anæsthetisation are precisely those required in dental work. Before commencing the operation (e.g., tonsillotomy), a Mason's gag is inserted between the teeth, and the mouth-prop removed: if a full sized facepiece is used, a few more whiffs of gas may then be given. In using this gag, care should be taken not to injure the teeth, and to avoid lacerating the gums, by pressure against the dental margins. I have also seen the soft palate severely bruised by the use of a large gag in a small child. Re-application of the facepiece, after the commencement of the operation, is only possible when the bleeding is but slight.

For the introduction of a small quantity of ether vapour, during the administration of gas, a small modified Clover's portable ether chamber is arranged between the facepiece and gas bag. No ether is introduced for the first six or eight inhalations (three or four in children), after which the chamber is rotated steadily and evenly, until all the gas inhaled passes over the ether contained in the reservoir. Nitrous oxide may be administered in any position, almost preferably when erect, and the small dose of ether suggested does not affect this statement.

Ether and the combined method.—If the degree of relaxation required is not extreme, I have myself no objection to administering ether in the erect or semi-erect position. With profound narcosis, however, it is difficult to retain this position, and the patient therefore should be supine. The apparatus used is that so well known as Clover's portable ether chamber, with the expiratory bag so arranged as to be capable of distension with gas. For the first two or three inspirations, gas alone is breathed, the ether chamber is then very gradually rotated, choosing, by preference, the period of expiration for each increment of ether. It is seldom necessary to proceed much beyond the stage when the index points to 2 (i.e., half ether). Before commencing, the mouth should be propped open as for gas.

The narcosis may be maintained by continual re-applications of the facepiece, the blood being cleared away beforehand; or by means of a gum elastic catheter, attached to a Junker's inhaler, and passed into the mouth, the bottle of the inhaler being filled with ether. It must be confessed that neither of these proceedings is very satisfactory, but, on the other hand, it must be recollected that the difficulty lies, not in the introduction of the vapour, but in making it pass the glottis. I do not think either, that anything is really lost by proceeding as deliberately with these, as with other operations in general surgery, and arresting the flow of blood caused by one incision before making another. Ether may, too, be administered quite effectually upon a Skinner's cage, but primary narcosis is difficult to produce by this means; it answers very well, however, for maintaining the anæsthesia induced by chloroform.

Chloroform.—Administration of this drug in any but the supine position is quite inadmissible. The mouth need not be propped open before commencing, but perhaps it is better to do so. I always use the so-called Skinner's inhaler or cage and a drop bottle, and it will be found

of advantage in children and nervous women, to commence the inhalation with a little Eau-de-Cologne or other scent. The covering of the cage should be domette or a coarse flannel; fine textured coverings are wasteful, and do not allow of a free admixture of air. Ordinary flannel too by repeated washing, tends to become gradually more close in texture. The anæsthesia may be maintained by means of the corner of a towel, or a Junker's inhaler containing chloroform, but I prefer myself to continue the use of the Skinner throughout, for reasons similar to those given above, when discussing the maintenance of ether narcosis, and also because I think that there is less danger of over anæsthetising the patient, which may very readily be done with such a substance as chloroform, the vapour of which is so much heavier than air.

Mixtures.—Little need be said concerning the administration of mixtures; it may be laid down as a general rule, that mixtures containing the *slightest trace* of chloroform, should be given in precisely the same way as that agent. Mixtures of ether and alcohol alone, may be administered as ether.

In maintaining chloroform narcosis, I not infrequently use mixtures of that drug, either with ether alone or with alcohol and ether on a Skinner's cage, or from a Junker, but I do so rather with a view to diluting the chloroform, than with the idea that any superiority attaches to such combinations.

DIPHTHERIA.

TCHERNIAIEFF NIKOLAI I. (St. Petersburg).—On Morbid Changes in the Fauces and Larynx in Scarlatina and Diphtheria. (*Transactions of the Third General Meeting of Russian Medical Practitioners at St. Petersburg, 1889, No. 6, p. 175.*)

HAVING examined microscopically the fauces and larynx from ten cases of scarlatina and as many of diphtheria, Dr. Tcherniaieff has arrived at the following general results:—(1) In scarlatinal sore throat, faucial deposits represent a fine granular mass (detritus) resulting from disintegration of a simple inflammatory infiltration. In idiopathic or genuine diphtheria, the deposit occurs in the shape of a peculiar hyaline network, which represents a product of a specific necrosis of the tissues. (2) In scarlatinal angina, the faucial and laryngeal tissues themselves are found to be affected by an acute, diffuse, fairly deep vascular granulation inflammatory process in various stages of its development. In diphtheria, the tissues undergo coagulation-necrosis, while inflammatory changes occur only secondarily, and by no means constantly. (3) In scarlatina, the faucial blood vessels present common inflammatory phenomena, such as dilatation, engorgement, peripheral accumulation of granulation elements, &c., while in diphtheria they are found to be attacked with hyaline degeneration. (4) In scarlatina, the epithelium undergoes pronounced degenerative (re'rograde) changes, while in diphtheria it remains usually

intact, even in the immediate neighbourhood of necrotic foci. (5) In scarlatina, the faucial and laryngeal changes are generally of a more diffuse character—in diphtheria of a more circumscribed one.

In the course of a discussion following Dr. Tcherniaïeff's communications, Professor V. K. Vysokovitch, of Kharkov, stated that some researches of his own fully support Loeffler's views, according to which the etiology and histology of scarlatinal diphtheria are quite different from those of genuine diphtheria. In the scarlatinal variety there are invariably found, in great numbers, septic streptococci, which penetrate deeply into the mucous and sub-mucous membranes, and are accompanied by deeply-seated foci of necrotic disintegration. In true diphtheria there are detected microbes of a different species—namely, Klebs-Loeffler's bacilli, which, in addition, lie only in the upper and middle layers of false membranes, but never reach the level of the subjacent mucous membrane itself.

Dr. M. V. Iatzevitch, of St. Petersburg, similarly thinks that scarlatinal diphtheria is essentially different from the genuine diphtheria. As an indirect proof, he adduced the fact that, having happened to observe, at a Poltava village in 1887, a scarlatinal epidemic, attacking 120 patients, and lasting about four months, he met with scarlatinal sore throat in as many as twenty-five per cent. of the cases, but he did not come across a single instance of genuine diphtheria about the locality during the whole period mentioned.

We draw the attention of Dr. Tcherniaïeff and his two colleagues to Dr. J. N. Trent's (of Columbus) paper in the *Philadelphia Medical and Surgical Reporter*, January 12th, 1889, page 36. The perusal of the paper (which "proves" the "identity of scarlatina and diphtheria") will, presumably, greatly please them, or, at all events, show them, approximately, how near is "the end of it."

Valerius Idelson.

CREW.—Diphtheria. *British Medical Journal*, October 13, 1888.

IN this paper, which was read before the South Midland Branch of the British Medical Association, the author expressed his high opinion of the vapour of iodine as a therapeutic agent.

Hunter Mackenzie.

FALKENHEIM.—Diphtheria. *Verein für Wissenschaftliche Heilkunde in Königsberg*, November 5, 1888.

THE author recommended intra-parenchymatous injections of carbolic acid into the tonsils in cases of diphtheria.

Michael.

PALEY (Brighton).—Diphtheria. *British Medical Journal*, October 6, 1888.

NOTES of case read, and cast of trachea and bronchi shown, before the Brighton and Sussex Medico-Chirurgical Society, September 6, 1888.

Hunter Mackenzie.

BRASCH (Putbus auf Rügen).—Statistics of Diphtheria. *Deutsch. Med. Zeitung*, No. 17, 1889.

STATISTICS dealing with diphtheria, and proving that the mortality of the disease decreases as age advances.

Michael.

PARSONS, F. (London).—**Diphtheria at Exmouth.** *Lancet*, November 10, 1888. (A Local Government Board Report.)

IN connection with this outbreak two causal points are stated to be especially deserving of notices—viz., infection by personal intercourse at school and elsewhere, and the inhalation of foul air from sewers and drains.
Hunter Mackenzie.

PARSONS, F. (London).—**Diphtheria at Llanasa and Whitford.** *Lancet*, November 3, 1888. (A Local Government Board Report.)

"WE are here face to face with some of the most obscure points relating to the etiology of diphtheria, such as the periodic progressive development and subsequent loss of a property of infectiveness, and the possibility of a recrudescence of the diphtheria poison occurring under trivial circumstances of congestion or inflammation, in throats that have at a former period been the seat of undoubted diphtheria. How far faulty sanitary circumstances can be regarded as lighting up anew the process of infectiveness cannot be stated; but it is noteworthy that it does cling to certain spots where there are, amongst other things, such defective sanitary arrangements as relate especially to drainage and excrement disposal."
Hunter Mackenzie.

SPEARS (London).—**Diphtheria in the Landissillio District.** *Lancet*, November 10, 1888. (A Local Government Board Report.)

A NOTEWORTHY point in this report is that two children of a physician attending cases of diphtheria, and who himself had a sore throat, suffered from the disease. Two terriers who accompanied this physician on his rounds also suffered from a throat affection with constitutional symptoms, and two cats became similarly affected. It was ten days after the first onset of the canine seizures that the two children fell ill, both on the same day, with attacks that proved to be genuine diphtheria.

Hunter Mackenzie.

AIRY (London).—**Diphtheria at Walthamstow.** *Lancet*, November 17, 1888.

A LOCAL Government Board Report, which contains nothing of importance or novelty.
Hunter Mackenzie.

PARSONS, F. (London).—**Diphtheria at Llandwddyn.** *Lancet*, November 3, 1888. (A Local Government Board Report.)

THE special interest in this outbreak is in the fact that the village lies in the basin of the valley which will form the new reservoir for the Liverpool waterworks. The valley is believed to be the bed of an ancient lake, and has been the scene of three severe outbreaks of diphtheria.

Hunter Mackenzie.

EDITORS OF LANCET (London).—**Increase of Diphtheria Mortality in London.** *Lancet*, November 3, 1888.

IT is stated that "during the last seven years (1881-7) the rate of mortality from diphtheria in London has considerably exceeded that recorded in any similar previous period of which record exists, and has

"also exceeded the mean rate in the whole of England and Wales, which was not the case thirty years ago, when the disease first became fatally prevalent in England. It is worthy of note that while, as is stated above, the death-rate from diphtheria during the last seven years averaged 217 per million in London, it did not exceed 113 in the twenty-seven great provincial towns, in which the death-rate from other zymotic diseases considerably exceeded that which prevailed in London."

Hunter Mackenzie.

EDITORS OF LANCET (London).—**Domestic Animals as Vehicles of Infection.** *Lancet*, November 3, 1888.

REFERENCE is made to a report from Chicago, that a local outbreak of scarlatina had arisen from infection by a cat. Diphtheria is mentioned as a disease which in all probability is occasionally communicated in the same way, for observations have shown that, whilst this disease was prevalent in man, a similar malady affected the cats belonging to the houses of the sufferers.

Hunter Mackenzie.

SEON, GREVILLE E. (Reading).—**Protection in Diphtheria.** *Lancet*, November 3, 1888.

A SUGGESTION of a pair of spectacles with a wire frame attached covered with gauze or silk, so as to protect the eyes, nose, mouth, and face from membrane or blood.

Hunter Mackenzie.

HENNIG (Königsberg).—**New Treatment for Epidemic Diphtheria.** *Berl. Klin. Wöch.*, Nos. 8 and 9, 1889.

THE author recommends gargling and internal use of aqua calcis, with ice applied externally. Though the paper is an extensive one, it is not intelligible why the author calls his treatment "new," as both prescriptions have been known for a long time.

Michael.

RIDGE, J. JAMES (London).—**Naso-Laryngeal Intubation in Diphtheria.** *British Medical Journal*. October 13, 1888.

GUM elastic, silk catheters, are passed through the nares into the larynx for breathing, and into the gullet for feeding purposes. The author has treated four cases in this way without a recovery, though on several occasions fits of suffocation were believed to have been averted.

Hunter Mackenzie.

EDITORS OF "LANCET" (London).—**Cold and Disease.** *Lancet*, November 10, 1888.

AN annotation referring to researches of Dr. H. H. Baker of Lansing, Michigan, who finds that diphtheria and scarlet fever prevail most in the cold seasons of the year, and decrease as the atmosphere becomes warm and moist. The retention of non-volatile salts in the mucous membrane of the air-passages, which occurs in proportion as the air is dry and cold is stated to be *vera causa* of such forms of inflammation.

Hunter Mackenzie.

LEWENTAUER (Constantinople).—On Turpentine in Idiopathic Croup. *Centralblatt für Klin. Medecin.*, No. 8, 1889.

A RECOMMENDATION of this treatment.

Michael.

KOLISKO AND PALTAUF (Vienna).—The Nature of Croup and Diphtheria. *Wien. Klin. Woch.*, No. 8, 1889.

It is not possible to discover any anatomico-pathological difference between croup and diphtheria. In both diseases Loeffler's bacillus was found. Both are one and the same local infectious process, producing general intoxication of the system.

Michael.

PINIACZEK (Cracow).—The Laryngoscopic Image of Croup. *Archiv. für Kinderheilk.*, Bd. X., Heft 5.

THE author has examined several children with this affection. He maintains that it is easy to examine dyspnoic children. He finds three types of laryngoscopic image: (1) The glottis is in the phonatory position, and the more the child makes forced inspiratory efforts, the more diminished becomes the glottic opening. In such cases the sub-glottic space cannot naturally be seen. (2) In other cases a space was seen in the glottis, leaving parts below the vocal cords open to view. The sub-glottic regions were red and swollen, and frequently covered with pseudo-membranes. (3) In other cases the mucous membranes and the vocal cords were covered with pseudo-membranes, but the vocal cords retained their normal mobility. The author records some examples of these so-called "types," and concludes that in some cases the stenosis is caused by the median position of the vocal cords, in others by the swelling of the glottis, and the third type by both causes combined.

Michael.

UNGAR & FERVERS.—On the Treatment of Whooping Cough with Chinine, and especially with Sub-cutaneous Injections. *Weiner Med. Blätter*, 1888, No. 31.

THE authors have treated whooping cough with chinine with good results. In cases in which the medicament is constantly vomited they use sub-cutaneous injections of chinine-carbylamide.

Michael.

BELTZ (Griefswald).—The Treatment of Whooping Cough. *Archiv. für Kinderheilk.*, Bd. X., Heft 5.

THE author, who is assistant to Prof. Strübing, has observed cases treated by Michael's method (insufflation of powders into the nasal cavities). Strübing's theory of the efficacy of this method is as follows:—There can be no doubt that there is an increased reflex irritability of the cough centre. There are not only physiological but pathological reflexes. Attacks may be brought on by conditions of injury, not only to the air passages, but also to other regions, and psychical irritation may also bring on attacks. In all cases the nose is found to be hyper-irritable. The treatment of this organ may therefore be of the greatest service. This is proved by the following cases:—(1) a case was cured in ten days; (2) a

case was nearly cured after two insufflations; (3) a case was cured in eighteen days; (4) another in eleven days; (5) another in twenty days; (6) another in twenty-four days; (7, 8, and 9) three cases cured within the same period. In three other cases the duration of the disease was not shortened, but the intensity of the attacks was influenced for good. Some other cases showed no influence to the treatment—of some cases benefited no table is given. The author agrees with Michael, that the best effects can be obtained if we commence the treatment very early, and either in the first few days or very late on (4th to 5th week), and concludes that this method of treatment is a great advance in therapeutics.

Michael.

MOUTH, TONGUE, PHARYNX, &c.

FRÜHWALD (Vienna).—On Stomatitis Ulcerosa. *Jahrbuch für Kinderheilk., Bd. 29, Heft 2.*

IN 11 cases the author has examined the secretions of the affected mouth, and has found in them a pathogenic bacillus which yields foetid cultures.

Michael.

WILLIAMS, CHARLES (Port Isaac, Cornwall).—A Remarkable Case of Probably Cancerous Disease. *Lancet, November 17, 1888.*

A DETAILED account of a case of (apparent) epithelioma of the lower lip and sub-maxillary glands, which showed curious alternations of destructive and healing actions.

Hunter Mackenzie.

COBB, R. (Indian Army).—Case of a Lesion at the Base of the Brain, Paralysing the Fifth and Hypoglossal Nerves, Treated by Trephining. *British Medical Journal, October 6, 1888.*

THE diagnosis was an intra-cranial growth at the base of the brain, close to the medulla and pons. Trephining was performed for the relief of pressure.

The author remarks that "the association in paralysis of the fifth and "hypoglossal nerves is unusual, and enables one to localise the lesion with "some precision. . . . It is probable that the hypoglossal nerve suffered "the most from direct pressure of the growth, as the wasting of the affected "half of the tongue was extreme, and no improvement resulted on the "removal of the intra-cranial tension."

Some remarks on the indications for trephining in such cases follow.

Hunter Mackenzie.

HERZOG.—Hypertrophy of the Glands of the base of the Tongue. *Verein der Aerzte in Steiermark, December 10, 1888.*

THE author related eight cases of this condition. The patients have a sensation of a foreign body, or of pressure, or slight pain, or hypochond-

driachal ideas. The best method of treatment is brushing with tincture of iodine. Michael.

BAGINSKY, KÜSTER, HEYMANN.—Tubercular Ulcers of Tongue. *Berliner Med. Gesellschaft, March 6 and 13, 1889.*

BAGINSKY showed a case of tubercular ulcer which had been treated without effect with lactic acid and curetting. Küster recommended the use of the thermo-cautery in such cases. Heymann also exhibited a case of tubercular ulcer of the tongue. Michael.

KAFEMANN.—On Modern Methods of Operation for Hypertrophied Tonsils. *Deutsch. Med. Zeit., No. 23, 1889.*

A RECOMMENDATION of the galvano-cautery. Michael.

MICHELSON.—Diseases of the Lingual Tonsil. *Verein für Wissensch. Heilk. in Königsberg, November 5, 1888.*

THE author referred to his own observations, and differentiated the following conditions:—

1. Acute folliculitis.
2. Mykosis leprothricia hyperplasia chronica.

He has also observed a case of tubercular ulcer of the lingual tonsil. Michael.

HOFFMANN (Jena).—Mixed Tumour of the Soft Palate. *Langenbeck's Archiv., Bd. 38, Heft 1.*

VERY detailed pathologico-anatomical description of an adeno-chondroma removed by resection of the upper jaw. Michael.

ROTH.—Tuberculosis of the Pharynx. *Medicin. Gesellschaft in Basel, October 4, 1888.*

THE author related a case of tubercular meningitis, in which the origin of the affection was in the pharyngeal tonsil. The bone was subsequently affected, and, later on, the meninges. Michael.

SCHNITZLER, Prof. J. (Vienna).—Lympho-sarcoma of the Pharynx. *K. K. Gesellschaft der Aerzte in Wien, April 12, 1889.*

ON December 21, 1888, the author exhibited a patient whose case led to an animated discussion (*vide* the report in this Journal). At that time Prof. Weichselbaum, who made a microscopical examination, saw that tuberculosis, carcinoma, and syphilis could be excluded, and that the case was a sarcoma or some unknown condition. As Profs. Neumann and Kaposi believed that syphilis was present, anti-syphilitic treatment was tried, but without effect. The ulceration extended and reached the larynx. Tracheotomy had to be performed, but the patient died some days afterwards. The autopsy proved the case to be one of sarcoma of the pharynx and larynx, with metastatic tumours in the peritoneum, spleen, and kidney. Michael.

DOYLE, H. MARTIN (London).—A Coin retained in the Œsophagus Four Months. *Lancet*, November 10, 1888.

THE coin (a halfpenny) was ejected after a violent attack of hiccough.

Hunter Mackenzie.

FORT.—Fibrous Stricture of the Œsophagus treated by Linear Electrolysis.—Cure. *Gaz. des Hôp.*, March 15, 1889.

THE stricture was situated four centimètres above the cardia, and it was impossible to pass the smallest olive through it. Linear electrolysis conquered the stricture in four sittings. This is the first time, the author remarks, that electrolysis has been used for this purpose.

Joal.

OVERLACH (Frankfurt O/M).—A Foreign Body Swallowed. *Deutsch. Med. Zeitung*, 1889, No. 14.

A CHILD had swallowed a sharp metallic toy. The author recommended the deglutition of a quantity of potatoes in form of *purée*. Next day the foreign body passed *per anum* without difficulty. It was embedded in potatoes.

Michael.

DEICHMÜLLER (Moscow).—The Potato-Cure for Foreign Bodies Swallowed. *Deutsch. Med. Woch.*, No. 17, 1889.

A GIRL, aged ten, who had swallowed a pin, was ordered to eat a large meal of potatoes. Some days after the pin was expelled *per anum* embedded in large masses of feces.

Michael.

PEPPER, A. J. (London).—Three Cases in which Gastrostomy was performed. *Lancet*, November 24, 1888.

THESE were cases of malignant stricture of the œsophagus. The author advocates early operation in such instances. Regarding the outlook, he says, "provided the patient be in a fair condition of health, a good prognosis may now be given both as regards recovery from the operation, and the future relief afforded by it."

Hunter Mackenzie.

NOSE & NASO-PHARYNX.

WOLF, J.—A Case of Congenital Malformation of the Face. *Berliner Med. Gesellschaft*, 9 Jan., 1889.

IN a child eleven months old there was, amongst other malformations, a cartilaginous tumour of the nose, which had two alae nasi and a septum. The two orifices of the false nose were imperforate. The author believed that the condition arose from amniotic torsion. He proposed to operate upon the child. In discussing the case, Dr. Kuster doubted if there was a double nose, but thought there was a nasal dermoid. An operation performed later showed that there was no dermoid.

Michael.

HEWETSON, H. BENDELACK (Leeds).—The Danger of Septic Infection arising from Nasal and Aural Discharges in Midwifery and Surgical Practice. *Lancet*, November 24, 1888.

A PAPER with illustrative cases. The obstetrician and gynaecologist ought to have no suppurating centres about his person. Hunter Mackenzie.

BROICH (Hanover).—Short Reply to Jelenffy's Paper on the Cleansing of the Nose and Naso-pharynx. *Berlin Klin. Woch.*, No. 4, 1889.

MERELY a polemical article.

Michael.

VOHSEN (Frankfurt O/M).—Combined method of Examination of the Naso-Pharynx and Larynx. *Monatsschr. für Ohrenheilk.*, No. 1, 1889.

THE author has examined patients placed with their heads turned to one side, the patient sitting in such a manner that he presents a shoulder to the physician. The head is then so turned that the face is opposite to the physician. In this position it is possible to examine with exactness the Eustachian tube, and at the same time to obtain a good view of the ventriculus Morgagni.

Michael.

MAURER.—Rhinolith. *Ärztlicher Bezirksverein Erlangen*, November 19, 1889.

THE size of the concretion was 17 by 14 by 11 millimètres, and its weight 2.25 grammes. The centre was formed by a cherry stone.

Michael.

STEPANOW.—Inneculation of Rhinoscleroma in Animals. *Monatsschr. für Ohrenheilk.*, 1889, No. 1.

THE author has inoculated portions of the neoplasm and cultures of the micro-organisms of this disease into the eyes of rabbits. He has had positive results in all cases, and has proved that rhinoscleroma is an infectious disease, and that Frisch's microbes are the cause of it.

Michael.

ROUGHTON, EDMUND (London).—The Importance of Nasal Obstruction. *Practitioner*, March, 1889.

A PAPER read before the Abernethian Society of St. Bartholomew's Hospital. It treats the subject in a clear, practical manner.

Maxwell Ross.

ZIEM.—Restriction of Visual Area in Nasal Diseases. *Deutsch. Med. Woch.*, 1889, No. 3.

THE author relates four cases of this combination. Such cases must be treated by removal of the nasal disease.

Michael.

GOMPERZ.—A Case of Soft Fibro-Papilloma of the Lower Nasal Meatus, combined with Hyperplastic Otitis Media. *Monatssch. für Ohrenheilk.*, No. 2, 1889.

THE title indicates the nature of the case.

Michael.

LANG.—Nasal Tumour. *K.K. Gesellsch. der Aerzte in Wien*, February 15, 1889.

THE author showed a patient with an elastic tumour of the back of the nose, the nose itself being filled with polypoid masses. Microscopical examination showed the neoplasms to be malignant, and it was possible that the tumour in question was also malignant. It might, however, be a gumma, as the patient had symptoms of syphilis. Michael.

DODD, CHARLES W. (Wurzburg).—Removal of Foreign Bodies from the Nose. *Lancet*, November 3, 1888.

"ALL that is needed is a simple, soft rubber tube, say one or two feet long, with a new rubber or wooden tip at one end, but large enough to fill the nostril. This olive-shaped tip is applied to the free nostril, the other end is applied to the lips of the surgeon, and a sudden hard blow is made, when (the soft palate having been closed either by the child's crying, or by a swallow of water in the case of an older person) the foreign body will fly out. If it does not come with one or two ordinary blows, the other nostril can also be held by the hand of the surgeon, and during the blow the hand suddenly withdrawn; this sudden relief of the compressed air will act with greater force, and will be sure to drive out the foreign body." The writer says he has never seen this method fail.

Hunter Mackenzie.

HARTMANN.—On Empyema of the Antrum of Highmore. *Deutsch. Med. Woch.*, No. 10, 1889.

THE author is of opinion that in most cases the affection is caused by carious teeth. The antrum can be operated upon by perforating the alveolus, or by making injections through the middle meatus. Michael.

BAYER (Brussels).—Contribution to the Study and Treatment of Empyema of the Antrum of Highmore. *Deutsch. Med. Woch.*, No. 10, 1889.

THE author describes a method of cleansing the antrum by causing the patient to assume a hanging-head attitude. He describes a case in which empyema was combined with nasal polypi. He destroyed the polypi with the galvano-cautery, enlarged the opening of the antrum in the same manner, and then made injections with the patient in the hanging-head position, having previously removed the pus in this manner. He remarks that the pus has a characteristic odour of trimethylamine, and he believes that nasal polypi are often a cause of empyema. He believes that his method is indicated in the case of a patient suffering from empyema in whom the teeth are intact, or when extraction is declined. In other cases he prefers Cooper's operation. Michael.

FRAENKEL, B. (Berlin).—An Answer to Dr. Bayer's Paper on the Treatment of Empyema of the Antrum of Highmore. *Deutsch. Med. Woch.*, No. 16, 1889.

MERELY a polemical article.

Michael.

BRESGEN (Frankfurt O.M).—**The Treatment of Empyema of the Sinuses of the Face, especially of the Antrum of Highmore.** *Berl. Klin. Woch.*, No. 4, 1889.

A POLEMICAL article concerning the paper of Moritz Schmidt on the same subject. (*Vide* this Journal.) Michael.

WEINLECHNER.—**Frontal Ectasis.** *K.K. Gesellschaft der Aerzte in Wien*, February 8, 1889.

THE author exhibited a patient with ectasis of the frontal sinus, in which were also formed atheromatous masses. The patient, who is now forty-five years old, had a traumatism on the forehead in his eighth year. Twelve years ago he experienced vertigo and spasms. For two years the right frontal sinus has been swollen. An operation cured the patient.

BILLROTH stated that he had observed a similar condition.

Michael.

SIDLO.—**Syphilitic Ulceration of Naso-Pharynx.** *Wissenschaftlichen Verein der K.K. Militäraerzte in Wien*, January 5, 1889.

A CASE was shown by the author of very extensive syphilitic ulceration in the naso-pharynx, with great destruction of the nose and palate. Cocaine had a very beneficial effect. The patient was very anæmic in consequence of not being able to swallow anything, but the use of cocaine enabled him to take nourishing diet. A cure was effected by anti-syphilitic treatment.

Michael.

BRAUN (Trieste).—**Bloodless Operation for Naso-pharyngeal Polypus—Five days later Severe Hæmorrhage—Tamponning with Iodoform Gauze with Belloc's Sound—Galvano-cautery—Cure.** *Internat. Klin. Rundschau*, No. 11, 1889.

THE title indicates the nature of the case.

Michael.

KRAKAUER (Berlin).—**Operation for Adenoid Vegetations of the Naso-Pharynx.** *Berl. Klin. Woch.*, 1888, No. 5.

THE author recommends a new scraping instrument with which he has operated upon 40 cases with good results.

Michael.

SCHWENDT.—**On Adenoid Vegetations.** *Medicin. Gesellschaft in Basel*, October 4, 1888.

THE author preferred to operate with forceps, as no piece could ever then fall into the larynx.

Michael.

LARYNX.

MARKWALD.—Chorea Laryngis. *Med. Gesellsch. zu Giessen*, November 20, 1888.

THE author demonstrated a typical case of this disease. Michael.

LACOEARRET.—Fibroma of the left Vocal Cord, treated with Galvano-Cautery. Cure. *Rev. Mens. de Laryngologie*, February 15, 1889.

RECORD of a case from the clinic of Dr. Moure. Joal.

JÜRGENSMEYER.—The Pathology of Sub-mucous Laryngeal Diseases. *Berl. Klin. Woch.*, No. 11, 1889.

A DETAILED report of a case of a sub-mucous inflammation of the epiglottis combined with necrosis, in which a cure was effected. Michael.

BESCHORNER (Dresden).—On Ventriloquy. *Jahresbericht der Gesells. für Natur und Heilkunde in Dresden*, 1887-88.

THE author has made rhinoscopic and laryngoscopic examination of a ventriloquist, and has found that there is no abnormal production of language, but only an unusual use of it. The glottis was in the falsetto position, not higher but lower than usual. The effect is produced by the use of this position combined with modified tension of the soft palate and pharynx, and the help of mimicry and practised ability to speak during inspiration. Michael.

SCHNITZLER, A. (Vienna).—On Functional Aphonia and its Treatment by Hypnotism, and Suggestion. *Internat. Klin. Rundschau*, Nos. 9, 10, 11, 12, 14, 1889.

FIVE cases of this affection have been treated in this manner by the author. While giving a detailed description of his cases, he remarks that he does not think his experiments allow him to arrive at definite conclusions, but he gives only the impressions he has received. If hypnotism can be performed, the effect will always be favourable in functional aphonia. In all cases in which he experimented he was able to procure good vocalization. But the result was not permanent in all cases, and the voice was only reproduced for a short time by each hypnotism. However, he thinks that hypnotism is very useful in such cases, and should always be tried. Michael.

HILDEBRANDT (Hettstadt).—Contribution to Tracheotomy. *Deutsch. Med. Woch.*, No. 15, 1889.

THE author prefers inferior tracheotomy where possible, for the following reasons :—

1. It is easier to avoid the thyroid gland.
2. The lumen is larger as the incision is deeper.
3. Diphtheria attacks the deeper parts only later on.
4. The operation is easier to perform.

He also recommends two hooks of special construction.

Michael.

LANDGRAF.—On Laryngeal Diseases in Typhoid Fever. *Laryngological Soc. of Berlin, May 15, 1889.*

IN the one moiety of typhoid cases there is no affection of the larynx, and in the other moiety, the disease is complicated by catarrh, ulceration, œdema, or perichondritis, specific typhoid ulcers are only observed upon adenoid tissue. Perichondritis is a secondary affection.

LUBLINSKI mentioned the pareses of the laryngeal muscles sometimes observed during the disease, and LEWIN remarked that perichondritis in typhoid usually attacked the cricoid cartilage.

Michael.

SOKOLOWSKY (Warsaw).—On the Curability and Local Treatment of so-called Laryngeal Phthisis. *Wiener Klin. Woch.*, 1889, Nos. 4, 5.

A RECOMMENDATION of the treatment with lactic acid, and of the surgical treatment with the sharp spoon, and of tracheotomy.

Michael.

BESCHORNER (Dresden).—Local Treatment of Tubercular Phthisis of the Larynx. *Paper read in the Gesellschaft für Natur und Heilkunde in Dresden, Nov. 3, 1888.*

THE author gives an historical review, and describes the disease as a destructive process of the larynx, usually secondary to tuberculosis of the lungs, and caused by invasion of tubercle bacilli into the tissues, and by destruction of these from the formation of miliary tubercles and tubercular infiltration. He speaks of prophylaxis, and general treatment, and states that he has had very excellent results from the adoption of the surgical treatment invented by Heryng.

Michael.

BESCHORNER (Dresden). — The Local Treatment of Tubercular Laryngitis. *Gesellschaft für Natur und Heilkunde in Dresden, November 3, 1888.*

THE author read a paper in which he reviewed the modern therapeutics of laryngeal tuberculosis. As to his own views, he thinks that the surgical treatment of Heryng and Krause yields good results, but can only be performed by specialists. He has seen good results from the internal use of creosote, warm inhalations, and insufflations of iodoform, salol, and from cocaine.

Michael.

GOLYNETZ, LÉONTY I. (St. Petersburg).—Lactic Acid in Laryngeal Tuberculosis. *Meditsinskoe Obozrenie*, 1889, No. 5, p. 480.

IN 1887, a male patient was admitted to Professor N. P. Simanovsky's clinic, suffering from advanced pulmonary phthisis with multiple ulcers situated on the left true vocal cord. Krause and Heryng's lactic acid treatment was resorted to, under which the lesions fairly rapidly healed.

Shortly afterwards the man died from the pulmonary disease. At the necropsy the larynx was found actually healthy, the only traces of the previous affection being constituted by firm scars.

In view of the fact as well as of the statements by Krause and Heryng, Dr. Golynetz, at the suggestion of Prof. Simanovsky, resolved to try the same treatment in eleven other cases of the disease, viz., five women, aged from twenty-four to thirty-five, and six men, of from twenty-two to thirty-two. In all of them there were present more or less extensive tubercular pulmonary lesions, with Koch's bacilli in the sputa. As to laryngeal morbid changes, in four of the patients the inter-arytenoid space alone was infiltrated and ulcerated; in one, the whole larynx was congested and thickened in addition; in one, the epiglottis alone was ulcerated; in two, one of the false vocal cords was similarly affected; in one, the epiglottis, arytenoid cartilages, inter-arytenoid spaces, false bands, as well as the posterior wall of the pharynx, and the right posterior faucial pillar, were covered with ulcers; while, of the remaining two, in one the process affected one half of the larynx, and in the other the whole organ. The treatment consisted in rubbing into the diseased parts aqueous solutions of lactic acid (by means of Heryng's cotton wool brush) three times weekly. In each case, a thirty per cent. solution was employed at the first sitting. In such cases where the application caused but a slight local irritation, a fifty per cent. solution was used at the next sitting, otherwise the stronger solution was resorted to only at a fifth *séance*. In such patients in whom no improvement was obtained after ten applications of a fifty per cent. solution (which happened in about fifty per cent. of the cases), an eighty per cent. solution was subsequently applied. Of the eleven, in three the ulcers underwent a complete cicatrization, while infiltration markedly decreased; in two of the three, however, a relapse followed, yielding again to the same means. In two others, the ulcers healed almost completely; in four, a marked improvement was noticed; while in two no amelioration whatever took place. Further, in two of the (more or less) successful cases, a decided improvement of the pulmonary process, as well as in the patients' general state was observed. In two others, however, the pulmonary disease markedly grew worse, notwithstanding a seemingly complete cicatrization of the laryngeal ulcers. In nine of eleven cases, improvement of the voice and decrease of pain on swallowing, and of cough were obtained. On the whole, Dr. Golynetz arrives at the following general conclusions:—(1) Lactic acid is a valuable remedy which, more especially in strong solutions, manifests an energetic beneficial action on the laryngeal tubercular process. (2) It acts not only on tubercular ulcers, but also on tubercular infiltration. (3) Successful results, however, require considerable technical skill. (4) When the acid is employed with due precaution, no preceding local anesthesia is needed.

[The paper was read by Dr. Golynetz, at the Third General Meeting of Russian Medical Practitioners of St. Petersburg. It gave rise to a prolonged and interesting discussion in the course of which

Dr. E. B. BLUMENAU, of St. Petersburg, related (*Transactions*, 1889, No. 10, p. 314) a case illustrating the comparative therapeutic effects of lactic acid and menthol. The case refers to a phthisical man of twenty-

eight, suffering from laryngeal tuberculosis of a twelvemonth's standing, the symptoms being aphonia, ulceration of the left true vocal cord, and considerable infiltration of the left false cord and inter-arytenoid space. At first the lesions were treated by painting with 30 and 40 per cent. solutions of the acid. After 20 applications which were always associated with a considerable local irritation, the ulcers and infiltrations slightly decreased, but the patient's vocalisation showed no improvement whatever. Hence Dr. Blumenau passed to painting with a 50 per cent. solution of menthol (in olive oil). Irritative phenomena were almost as intense as in the case of lactic acid, but of a shorter duration. The ulcers commenced to rapidly heal, though the voice still remained rather bad. A 30 per cent. solution of menthol was then tried, the result being a rapid, striking amelioration of the voice. In all, menthol was applied 17 times (12 in the shape of a 50 per cent. solution, and 5 of 30 per cent. solution). In general, Dr. Blumenau emphasises that the use of lactic acid and menthol requires a careful individualisation. In stronger and patient persons, lactic acid may be employed; in delicate ones, menthol.

Professor V. N. NIKITIN, of St. Petersburg, said that his experience on the whole supported Dr. Golynetz's observations, with the only difference that in his hands lactic acid almost invariably gave rise to laryngeal spasm. The fact was, after all, not very surprising, since in the patients under consideration there always existed hyperæsthesia of the upper portions of the respiratory tracts. Hence, Dr. Nikitin's routine practice was to previously paint the parts with a cocaine solution, and only then to apply the acid, beginning invariably with a 20 per cent. solution. By the way, he found that in such cases where the process was localised on the vocal cords, the treatment gave by far better results than in those in which ulcers were located about other parts of the organ. [Dr. GOLYNETZ, referring to the point, stated that he had never observed any difference of the kind.]

Professor FEDOR A. LOESCH, of Kiev, communicated that he had recently treated three cases by lactic acid. In two of them a considerable local and general amelioration ensued, the patients being discharged in a fair state. In the third case, however, where, beside laryngeal disease, there existed tubercular ulcers on the fauces, the acid (a 40 per cent. solution) showed no influence on the lesions whatever, the patient dying from pulmonary disease.

Having been questioned by Dr. Behrmann, Professor SIMANOVSKY said that he himself is inclined to give lactic acid preference to menthol. The matter being still unsettled, there are being carried out, in his clinic, two extensive series of parallel experiments, in order to elucidate the relative and absolute therapeutic value of the two drugs.]

Valerius Idelson.

OSSENDOVSKY, ALEXANDR I. (St. Petersburg). — **Menthol in Laryngeal Tuberculosis.** *Meditsinskoe Obozrenië*, No. 5, 1889, p. 484.

As is well known, Koch, Villemin, Braddon, etc., have shown that menthol possesses a powerful parasiticide action. Starting from this fact, Albert,

S. Rosenberg, and Beechag commenced to use the drug in laryngeal tuberculosis. The results proved to be surprisingly satisfactory.

Following the suggestion by Professors D. I. Koshlakoff and N. P. Simanovsky, Dr. Ossendovsky has undertaken a series of clinical experiments in order to verify the statements by the authors named. He resorted to the menthol treatment in seven cases of laryngeal phthisis, complicating late pulmonary tuberculosis (in male patients, aged from twenty-four to fifty). Only one of the cases referred to an early local lesion (infiltration in the inter-arytenoid space). In the remainder there were present, beside infiltration and congestion, multiple ulcers situated either about the inter-arytenoid space or on the true vocal cords. In one and all the sputa contained tubercle bacilli. In four of the patients the drug was employed simultaneously externally and internally (the dose not stated—*Reporter*). Menthol was used in the shape of a ten to thirty per cent. oleaginous solution, which was rubbed into the parts by means of Heryng's cotton-wool brush either once daily or thrice weekly. In two of the cases, previously to the painting, the drug had been inhaled from Schreiber's apparatus, and, later on, insufflated with equal parts of burnt magnesia. The duration of the treatment in individual cases varied between three weeks and three-and-a-half months. Four patients are still under observation. In all cases but one a marked improvement ensued; inflammatory phenomena subsided, pain lessened, ulcers assumed a healthier appearance, and decreased in size. A complete cicatrization, however, could not be obtained in any of the patients. In the remaining case perichondritis supervened during the treatment.

From those experiments Dr. Ossendovsky draws the following deductions:—(1) Menthol is a good anodyne, securing a considerable, though temporary, subjective amelioration. (2) It is very useful to administer the drug simultaneously externally and internally. (3) The best plan is to begin the painting with a ten per cent. solution, and gradually pass to stronger ones. A forty to fifty per cent. solution gives rise occasionally to an intense local irritation.

Valerius Idelson.

THOST (Hamburg).—The Treatment of Laryngeal Stenoses by Schroetter's Method. *Berl. Klin. Woch.*, No. 4, 1889.

STENOSIS of the larynx is often produced as a consequence of laryngeal complications in abdominal typhus, typhoid infiltration, mycotic ulcers, diphtheritic or decubitus ulceration. The patient is obliged to wear a permanent cannula, and can only be cured by the treatment invented by Schroetter. As to the choice of a cannula, the author prefers Durham's to Trousseau's, since the latter is likely to give rise to ulceration of the posterior wall of the trachea. The author has tried O'Dwyer's tubes, but without success, as they are so soon expelled. Schroetter's tin bougies should remain in the larynx at first for one or two hours, later on from twelve to twenty-four hours. If the case has so far progressed that the cannula can be removed, Schroetter's hard rubber tubes should be introduced by the patient every day, and kept in for some time. Stoerk's cannula is also very useful for the early stages.

Case 1. A patient, twenty years of age, was tracheotomised for perichondritis in the fifth week of typhoid. The cannula could not be removed. The patient was treated for half a year with tin bougies, after which the cannula could be removed. Further treatment with hard rubber tubes was adopted. Six months later closure of the tracheal fistula was obtained by operation.

Case 2. A patient, thirty-two years of age, was tracheotomised in the ninth week of abdominal typhus, and treated in the same manner. The cannula cannot, however, be yet removed.

Case 3. A patient, thirty-three years old, was tracheotomised in the seventh week of typhus on account of diphtheritic pharyngitis and glottic œdema. After treatment for two months a cure was obtained.

Case 4. A patient, forty-one years of age, was tracheotomised in the twelfth week of typhus during a recurrence. There was also an extensive ulcer of the hard palate, from which a lamella of bone had been eliminated. There was also stenosis of the œsophagus. This was treated with œsophageal bougies. The larynx was treated with Schroetter's bougies. The patient is not yet cured, but the prognosis is good.

Case 5. A patient, thirty-four years of age, was tracheotomised one and a half years after a severe typhus. (This case cannot, however, be regarded as a sequence of typhus.—*Rev.*) With the laryngoscope a greenish mass was observed in the sub-glottic region, resembling necrosed cartilage. It was not possible to extract the body, which was coughed out the following day. Three weeks later the cannula could be removed.

Case 6. A patient, twenty-seven years of age, had always been hoarse. Dyspnoea occurred suddenly, necessitating tracheotomy. The cannula could not be removed for two years. Laryngo-fissure has been performed twice without result. Treatment was adopted with Schroetter's bougies, and, after a year, the cannula could be removed. After-treatment was adopted with hard rubber tubes. The stenosis appeared to be specific. *Michael.*

RÜKOVITCH, O. K. (St. Petersburg).—**On the Treatment of Laryngo-Stenosis resulting from Perichondritis in the course of Enteric Fever.** (*Transactions of the Third General Meeting of Russian Medical Practitioners at St. Petersburg, 1889, No. 8, p. 269.*)

DR. RÜKOVITCH points out that perichondritis of the laryngeal cartilages represents an occurrence of great clinical importance. "Once started at 'an early stage of typhoid fever, the inflammation runs its course exceedingly slowly, but steadily, and, when unrestrained by our interference, 'destroys this important organ portion by portion, until ultimately causing 'laryngeal stenosis.' According to Lübnig's statistics, embracing 199 cases of stenosis of various origin, in 147 tracheotomy was performed with 77 deaths and only 70 recoveries. Of the latter cases, in 64 the patients were obliged to wear the cannula to the end of their lives. All the 70 had had perichondritis with consecutive necrosis. Of the whole number (199), as many as 125 died.

The author adduces a remarkable case of typhoid perichondritis of the cricoid cartilage. The patient, a soldier, was admitted to the Nikolaievsky Military Hospital, on March 8, with symptoms of typhoid fever. On

March 16, there supervened pain on swallowing, cough, and dyspnœa. No alarming symptoms, however, were noticed till May 12, when grave phenomena of laryngo-stenosis made their appearance, which led to the laryngoscopic examination. The author detected the presence of a sub-glottic polypoid tumour bulging out between the vocal cords. High tracheotomy was performed without delay, but utterly failed to relieve the urgent symptoms. On the next day, Dr. K. F. Reyher enlarged the wound upwards, dividing both the cricoid cartilage and crico-thyroid ligament. It was found then that the tumour was situated just under the left true vocal cord. Its nature and relations, however, could be duly ascertained only after a free division of the thyroid cartilage (by Paquelin's thermo-cautery, without the slightest loss of blood). The tumour proved to be nothing else than a luxuriant granulation mass growing out from a fistulous opening immediately below the middle of the band. The granulations having been clipped away with scissors, a fistula, about one centimètre long, presented itself, running obliquely backwards up to the "stamp" of the cricoid cartilage. The sinus was split up and a sequestrum (three-quarters of a centimètre by two millimètres) removed, after which both the fistula and external wound were plugged with boracic gauze, and a long tracheal cannula inserted. Five weeks later, the man was discharged quite well, the only traces of the grave disease being a large scar and somewhat harsh timbre of the voice.

Pointing to the brilliant results obtained in his case, and, on the other hand, to the enormous mortality from laryngeal stenosis in general, Dr. Rükovitch lays down the following proposition: in all cases of laryngo-stenosis arising from perichondritis in the course of enteric fever, laryngo-fissure should be performed in order to thoroughly examine and to scrape out the parts, and generally to practise such local treatment as may be indicated by the particulars of the case. In view of hæmorrhagic tendency in typhoid patients, the operation should be performed by means of Paquelin's apparatus.

Valerius Idelson.

NEWMAN, DAVID (Glasgow).—**Two Cases of complete Laryngeal Stenosis, produced by wounds of the Larynx in attempted suicides, treated successfully by means of Tupelo Dilators; also a case of Syphilitic Stenosis treated in the same way.** *Glasgow Medical Journal.* October, 1888.

AFTER describing the cases, the author writes:—"The method of using the tupelo wood tents is as follows: Tracheotomy having been performed a week or ten days previously, and a large size tracheotomy tube inserted at the time of the operation, the wound in the neck is sufficiently healed to permit the patient in most cases to breathe easily after the removal of the tube. In the case of syphilitic stenosis, however, the contraction of the wound took place so rapidly that the tracheotomy tube could not be kept out for more than a couple of minutes at a time, so that the dilator required to be passed upwards through an opening in the convex side of the tube. In most cases, however, the tracheotomy tube may be removed without danger to the patient. This having been done with the aid of the laryngeal mirror, a small-sized laryngeal probe should be

" forced downwards through the stenosed tissue, and brought out through
 " the wound in the neck. To the end of this probe two strands of silk
 " ligature should be tied, dragged upwards through the larynx and mouth,
 " and the free ends knotted externally, so that a circle of ligature is made,
 " part of which occupies the larynx. The tracheotomy tube is then
 " re-inserted. Within the next twenty-four hours the ligature will be
 " found to have swollen by the absorption of saliva, &c., and to have
 " enlarged the opening in the larynx. The thickness of the ligature may
 " then be increased by untying the free ends, and to the upper one four
 " or six strands of silk should be fixed. By waxing the knot well, and
 " compressing it with forceps, the thicker skein can easily be dragged
 " through the larynx, and made to replace the smaller one, and so on day
 " by day the size of the passage may be gradually increased—first, by the
 " employment of silk ligatures, and subsequently by the introduction of
 " hard hemp cords. When the passage is large enough to admit a No. 10
 " urethral catheter, a tupelo wood dilator may be inserted. The smallest
 " used is about the size of a No. 4 catheter. The dilators as prepared are
 " about 4 inches in length. The pointed end of the dilator should be
 " dipped in melted wax, for the purpose of facilitating introduction and
 " closing the orifices of the fibro-vascular bundles. A silk ligature should
 " be tightly wound round the point of the tent, and made to pass through
 " it several times, so as to prevent the danger of slipping. One end of
 " the ligature should be tied to the lower end of the cord, which passes
 " through the larynx, while the other end of the ligature should be passed
 " through the dilator about one-eighth of an inch from its lower extremity.
 " The length must be determined by the size of the larynx and the extent
 " of the stenosis.

" The point of the dilator should pass one-fourth of an inch above the
 " uppermost limit of the constriction, while its lower end should rest upon
 " the convex side of the tracheotomy tube, to which it should be tied
 " firmly. In two or three days the tupelo wood will be found to have
 " swollen to its maximum size, so that further dilatation by it is not to
 " be looked for. Larger sizes of dilators should then be substituted until
 " the passage through the larynx is as large as the normal trachea of the
 " individual, then the pharyngeal limb of an artificial larynx should be
 " passed, and retained in position. There is not much danger of one
 " distending the larynx, or of injuring the cartilages by tupelo wood, as
 " moderate pressure from without readily reduces the bulk of the dilator, but
 " while being spongy in this respect the wood remains tough. The only
 " question now remaining for consideration is whether those patients,
 " whose cases have just been narrated, must be condemned to wear an
 " artificial larynx during the course of their life, or may something more
 " be done for them? In the case of syphilitic stenosis, the tendency of
 " the cicatricial tissue to contraction is so great that little hope can be
 " entertained of relieving the patient further, but in the other two after
 " cicatrization is complete an attempt will be made to remove the tubes
 " and close the opening in the neck."

Maxwell Ross.

SEIFFERT.—Tracheotomy in Laryngeal Tuberculosis. *Monat. Med. Woch.*, Nos. 14 and 15, 1889.

A REVIEW of the opinions of different authors on this point, with a communication of four original cases.

1. A patient, thirty-two years of age, dyspnoëic and with difficulty of swallowing. After tracheotomy improvement followed in the laryngeal condition, but death occurred two months later.

2. A patient forty years of age. Great difficulty existed in swallowing. After tracheotomy there was improvement. Death occurred four weeks later from pulmonary œdema.

3. A patient, sixteen years of age, had dyspnoëa and difficulty of swallowing. Improvement followed tracheotomy. Death occurred ten days later.

4. A patient, forty years of age, had dyspnoëa. Tracheotomy was performed, and on opening into the trachea pus was discharged from perichondritis of the cricoid cartilage. The patient's condition was much improved, and prognosis in this case is good.

The author concludes that tracheotomy is not a cure for laryngeal tuberculosis, but should be performed if there is any indication for it.

Michael.

VALETTE.—Primary Tuberculosis of the Trachea. *Thèse. Paris*, 1889.

THAT there exists a primary tuberculosis of the trachea is as certain as that a similar condition of the tongue, pharynx, larynx, conjunctiva, choroid exist, quite independently of any pulmonary lesion. Tracheal tuberculosis has a very slow evolution, only evidenced at first by signs of persistent simple tracheitis, but to these may be super-added grave phenomena, attributable to constrictions or extensive ulcerations of the trachea. Joat.

SOKOLOWSKY (Warsaw).—Contribution to the Casuistics and Therapeutics of Primary Laryngeal Carcinoma. *Internat. Klin. Rundschau*, Nos. 9 and 10, 1888.

A PATIENT, forty years of age, had been hoarse for five years, and had latterly become very dyspnoëic. There was now to be seen, laryngoscopically, a tumour of the right vocal cord, and swelling and immobility of both arytenoid cartilages. Tracheotomy was performed. The disease, thought previously by the author, and also by Prof. Schnitzler, to be laryngeal tuberculosis, must now be considered to be a case of neoplasm. Microscopical examination proved this neoplasm to be a papillary fibroma. The growth was removed, and later on the tracheal cannula was also removed. Half a year later dyspnoëa again occurred, and a second tracheotomy was necessitated. A second microscopical examination proved the new formation to be carcinoma keratoides. The case was of great interest, on account of the diagnostic difficulties; the temporary cicatrization of a canceroid growth is especially rare. The author does not believe that this was a case of transformation of a benign into a malignant neoplasm. Local treatment was favoured with good results.

Michael.

SCHEDE (Hamburg).—**Case of Total Extirpation of the Larynx for Carcinoma, with Cure lasting for over four years; with Remarks on Morell Mackenzie's Statistics.** *Deutsch. Med. Woch.*, No. 4, 1889.

THIS case has been previously reported (Aerztliche Verein, in Hamburg). As to the statistics, Schede mentions that one of his cases, in which death occurred from suicide, is related twice over, and complains that another case, completely cured, is mentioned as "still living." He is of opinion that the first twenty-five cases of extirpation should not be used for statistical purposes, since at that time the *technique* of the operation was not sufficiently known. He is an advocate of partial or total extirpation for carcinoma of the larynx.

Michael.

KRAGEWSKY (Warsaw).—**Corrections and Supplements to Sir Morell Mackenzie's Statistics on Total Extirpation of the Carcinomatous Larynx.** *Deutsch. Med. Woch.*, 1889, No. 4.

THE author has operated upon a patient with carcinoma of the larynx, who, however, died ten months later from pneumonia and metastases of the glands. In reference to this case he had occasion to compile statistics of 118 cases of total extirpations, and consulted Mackenzie's statistics. He has found 22 cases which are related twice, owing to the case having been published in two journals, or by different authors. Eleven recorded cases are not mentioned.

Michael.

SEIFFERT (Würzburg).—**Congenital Formation of Membranes in the Larynx.** *Berl. Klin. Woch.*, 1889, No. 2.

THERE are very few cases recorded of this condition, amongst them being one by the author, and another by Zurhelle. Membranes are described as occurring in adults by Rosenberg (formation of a membrane in a case of spontaneous cure of laryngeal tuberculosis); a second by Hopman (membrane and papillomata). The author has had occasion to examine the family of the case described by him (*cf.* the report in this Journal) with the following extremely interesting results:—(1) The father is healthy, and had never had hoarseness. The laryngoscope shows at the anterior commissure a membranous concretion of the vocal bands three to four millimètres long. (2) The mother's larynx is normal. (3) The larynx of the eldest son on mother's side normal. (4) The case reported. (5) Daughter, twelve years old, has membranous band of the same extent as the father. She never had been hoarse. (6) Daughter, seven years old, speaks with hoarse voice. The laryngoscope shows a membrane between the anterior portions of the vocal cords. The membrane is white, and slightly vascular. There can be no doubt that there are hereditary anomalies.

Michael.

LEYDEN.—**Foreign Body in the Air-Passages.** *Deutsch. Med. Woch.*, 1889, No. 5.

Vide the report in this Journal ("Verein für innere Medecin"). Michael.

JALAGUIER. Foreign Bodies in the Air-Passages. *Soc. de Chirurgie.*,
March 13, 1889.

THE author exhibited an almond extracted by tracheotomy. It had remained for several days in the air passages. The respiratory difficulties were relatively moderate. When the patient took a deep inspiration the almond descended towards the bronchi; he was, however, threatened with asphyxia when the almond was pushed towards the upper regions, thus coming in contact with the glottis.

Joal.

PINIACZEK.—A Broken Tracheal Cannula. *Verein der Aerzte in Krakau.*
February, 1889.

THE author exhibited a broken tracheotomy tube, which he had extracted from the right bronchus.

Michael.

ZIEM.—Answer to Suchannek. *Monatssch. für Ohrenheilk.*, No. 2, 1889.

A POLEMICAL article.

Michael.

NECK, THYROID, &c.

WOLF and FRAENKEL.—Operations on Goitres. *Berlin Med. Gesellschaft*, *March 6 and 13, 1889.*

THE author has performed two operations upon goitres which caused tracheal stenosis. He had extirpated the isthmus in each case. The lateral lobes were by this means freed, and could not cause tracheal compression.

B. FRAENKEL had made laryngoscopic examinations of the cases, and stated that, after the operations, a diminished mobility of one vocal cord and inflection of the trachea, which had previously existed, had now disappeared.

Michael.

DARDEL.—Hydatid Cysts of the Thyroid Gland. *Thèse*, Paris, 1889.

THREE methods of treatment may be employed for hydatid cysts of the thyroid: (1) puncture, with injections of anti-parasitides; (2) incision; (3) enucleation. In such cysts which do not give rise to any functional troubles one may employ the first method, injecting tincture of iodine Van Swieten's liquid, ammonio-mercury, peptone, &c. Nélaton and Pean have successfully practised incision. The author, however, prefers enucleation, which gives more certain results, and leads to rapid cure.

Joal.

WEIL, C. (Prague).—Researches on the Thyroid Gland. *Prüger Med. Wch.*, Nos. 14 and 15, 1889.

FROM experiments performed upon dogs the author shows that the so-

called "cachexia strumipriva" is really a consequence of abolition of the thyroid gland.

Michael.

BOSE.—Method of Operating for Struma. *Med. Gesellsch. zu Giessen*, November 20, 1888.

THE author recommends that the hypertrophied portion of the thyroid gland shall be constricted with a soft rubber drainage tube. The operation is then much easier, and can be performed without any bleeding.

Michael.

MILLARD.—Œdemas in Basedow's Disease. *Thèse, Paris*, 1888.

(ŒDEMA of the subcutaneous cellular tissue is met with frequently in Graves' disease. Limited generally to the lower limbs, it may develop in any region of the body, or may even become general. If it is sometimes the index of a grave complication it is far from always having great significance, and it may be developed in the absence of any cachectic condition, or valvular lesion, and the causes which often lead to it are numerous. Vasomotor innervation troubles, permanent or transitory dilatations of the heart, or its enfeeblement, anæmia, chlorosis, are the conditions which favour development of œdema.

Joal.

BURTON, F. W. (Cambridge).—Cutaneous Affections in Graves' Disease. *British Medical Journal*, October 6, 1888.

THE author described to the Cambridge Medical Society, July 13, 1888, two cases of exophthalmic goitre, one complicated with many of the symptoms (pigmentation, gastric trouble) of Addison's disease, and the other noteworthy in the subject being a man, in which sex the disease is five times less common than in women. A third case, under the care of Mr. Wherry, was mentioned, in which troublesome urticaria came out every morning, and disappeared after an hour or two.

Hunter Mackenzie.

RADESTOCK.—A Case of Intra-tracheal Struma. *Ziegler und Nauwerk. Beiträge zur Path. Anatomie. Band III., p. 291.*

IN a patient dying of tuberculosis an accessory struma was discovered placed upon the introitus of the right bronchus.

Michael.

HUN, H., and PRUDDEN, T. M.—Myxœdema. *International Journal of the Medical Sciences*, July and August, 1888.

A CAREFUL clinical account of four cases of the disease, with an analytical notice of other 150 cases published by various authors.

Hunter Mackenzie.

EDITORS OF "LANCET," (London).—Sudden Death from a Mediastinal Tumour. *Lancet*, November 10, 1888.

AN annotation having reference to a case reported by Dr. E. S. Perman, Stockholm, in which an encephaloid cancer, situated in the anterior mediastinum, and which had burst, formed a large tumour on the left side of

the neck, and caused death by pressure on the heart and great vessels, especially the superior vena cava. There was no compression of the trachea or lungs.

Hunter Mackenzie.

BLACK (Brighton).—**Blood Cyst.** *British Medical Journal*, October 6, 1888.

EXHIBITION before the Brighton and Sussex Medico-Chirurgical Society, September 6, 1888, of a case of blood cyst of the neck in a boy, which was cured by drainage, after the patient had run great risk from septicæmia.

Hunter Mackenzie.

SPANTON, WM. DUNNETT (Hanley, Staffordshire).—**A Case of Cystic Lymphoma of the Neck.** *Provincial Medical Journal*, November, 1888.

THE tumour had existed for twenty-seven years, and, when operated on, extended from the parotid to the clavicle on the right side of the neck, and pushed the larynx and trachea over to the left side. The voice was "rough and laryngeal." The day after the operation, an attack of dyspnoea occurred, and was overcome by removing some of the sutures and allowing some blood-clot to escape from the wound. Recovery was afterwards uninterrupted.

Maxwell Ross.

REVIEW.

HANDEMANN.—**The Human Voice and Speech in their Physiological and Psychological Relations.**¹ *Aschendorf, Münster, 1887, f. 230.*

THIS book, written by a Father of the Society of Jesus, excels in its erudition, as is characteristic of the theologians of this congregation, a circumstance to which their great influence is due. The first chapter gives an anatomical description of the organs of speech and voice, in a manner unusually clear and correct for a non-medical man. The second chapter describes the nerves influencing voice and speech, the centre, and its pathological conditions of aphasia, agraphia, &c. A third chapter deals with the physiology of voice and speech, gives the theory of tune, the acoustic specialities of the human voice, the physiology of the formation of vowels and consonants. In most books, when reference is made to this point, the authors limit their remarks to the language in which the book is written. The author, however, bases his theories on comparative studies of the most important ancient and modern languages, specially referring to Hebrew. The roots of three letters, common to many words of similar meaning, give him occasion for very interesting comparative

¹ *Die Menschliche Stimme und Sprache in Physiologisch-Psychologischer Beziehung.* Münster, 1887, bei Aschendorf, 230 pag.

physiological and philological remarks. The study of this chapter, which it is not possible to produce in a short report, is of great interest. In an appendix the author treats of stuttering, and gives directions for the exercise of the voice and speech. The latter are given with especial reference to "Weiss Stimbildungslehre," which the author regards as a work of authority. The book of Handemann will well repay attentive study.

Michael.

NEW PREPARATIONS.

Coca Tablets. (The French Hygienic Society.)

THESE tablets, consisting of coca and boracic acid are eminently fitted to fulfil the purpose for which they are intended, viz., the relief of soreness consequent upon chronic catarrhal conditions. We can imagine that they would be serviceable to persons who use the voice very much. The combination with boracic acid increases the efficacy of the coca. We have submitted them to practical tests, and can highly recommend them.

Lion Essence of Beef. (Edge Brothers.)

THE "Lion Essence of Beef" preparation has been long known to us as one of the three best meat essences in the market. We have been in the habit of prescribing it largely for some years, since it first came out, and we have always thought very highly of it as a preparation for invalids. It is, moreover, a particularly palatable jelly and is liked by patients.

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NASAL OBSTRUCTION

In its relation to the Administration of Anæsthetics.

BY J. FREDK. W. SILK, M.D. (Lond.), &c.,
Anæsthetist to the Great Northern Central Hospital; to Guy's Hospital (Dental School); and to the National Epileptic (Queen's Square).

THERE are but few morbid conditions which have received, of late years, more careful attention than that of nasal obstruction, and it has frequently been shown, that the condition is by no means one which concerns the specialist alone, but, on the contrary, that the patency, or the more or less complete closure of the naso-pharyngeal airway, may greatly influence the general health. The production of artificial anæsthesia by inhalation, is so frequently resorted to, that I hardly need to offer any excuse, for attempting to point out how important are the bearings of such obstruction, upon the process of administration.

Unless the indications to the contrary are very obvious, the administrator naturally concludes, that the anæsthetic vapour reaches the lungs by the usual channels, *i.e.*, the nose and mouth, and mainly the former. If, however, nasal obstruction exists, this double-barrelled, or oro-nasal airway, is converted into a single or oral one in direct proportion to the degree of obstruction. In this connection I would point out—

1. That such anæsthetics as ether, and, in a lesser degree, nitrous oxide, by increasing the turgescence of the mucous membranes, tend to accentuate any slight obstruction that may already exist, or may convert what was originally a partial, and maybe unnoticed, obstruction, into a complete one.

2. That with all anæsthetics, extreme degrees of relaxation, likewise accentuate pre-existing nasal obstruction, by permitting of the falling of the velum palati towards the posterior wall of the pharynx. The proper explanation to give, of the apparent superiority of chloroform for children, appears to me to be, that partial nasal obstruction is then of very frequent

occurrence, and that such obstruction, on account of the depressing action of the chloroform, is somewhat less likely to be rendered absolute than with ether; but I think that, when the condition in question is fully recognised by those administering anæsthetics, and precautions taken to obviate any possible difficulty which may arise from this cause, one, at any rate, of the most serious objections to the use of ether in the young, will be removed.

The conversion of an oro-nasal into an oral airway, should not, of course, under ordinary circumstances, give rise to the slightest anxiety or trouble; difficulties may, however, then arise under the following circumstances, viz. :—

1. During the stage of induction, on account of the swelling of the tongue which then tends to fill up the only remaining, or oral, airway. This condition is often aggravated, by the abundant secretion of mucus and saliva, and by the spasmodic closure of the jaws and mouth, as a result of the action of the anæsthetic employed; not only is the inhalation prevented under these circumstances, but a certain degree of asphyxia is also developed;

2. During the maintenance of the narcosis. Short of absolute occlusion of the glottis by the base, mere contact of the tongue, (even if not swollen), with the roof of the mouth, by obstructing the *oral* airway, is sufficient to add materially to our difficulties. Spasmodic closure of the mouth and jaws likewise ensues in these cases, but rather as a result of the partial asphyxia, than as a cause of that condition.

If the true nature of these difficulties is recognised at the outset, it is comparatively easy to prevent their occurrence, or to overcome them when developed. In the first place then, if nasal obstruction is known, or is suspected to exist, it is always wisest to place a prop between the teeth before commencing the inhalation. Not only is it then easier, subsequently, to insert a gag or mouth-opener, if necessary, but the mouth will be held sufficiently open, to enable us to seize the tongue, should it be desirable to do so.

In the second place, the frequency of more or less complete nasal obstruction, and its tendency to be accentuated under an anæsthetic, should be borne in mind, especially in administering to children. If no prop has been inserted, and if asphyxial troubles arise which do not yield readily to simple measures, *e.g.*, pushing forward the lower jaw, we should endeavour to secure a proper oral airway by the use of the mouth opener or gags. I am inclined to place the importance of opening the mouth, second only to compression of the chest or artificial respiration. With the mouth open, we are rendered independent of the nasal passages; we can clear away mucus, etc., and pull forward the base of the tongue; we can command the glottis, and, if need be, proceed to intubate the larynx.

I have been led to devote a good deal of attention to the subject, because of the occasional occurrence, in my own practice, of cases of which the following is almost a typical example, viz. :—

The patient was a lad aged ten; chloroform was administered by means of a Skinner's frame, and he passed fully and quietly under the influence

of the anæsthetic in four minutes, half a drachm being used. The narcosis was maintained subsequently for about ten minutes, towards the end of which time the breathing became slow and shallow, but with nothing approaching stertor: lividity of the lips then appeared, deepened and extended to the nose and cheeks, but the pulse remained good, and became almost bounding in character, and the pupils did not dilate; obviously the danger was due to asphyxia and not to syncope. Dr. HOWARD'S paper upon apnoea, had just then appeared, and this case seemed one in which good might be expected to result from the procedure therein advocated; the child's head was accordingly brought over the edge of the bed, the shoulders raised, and the neck extended to the very utmost limit, but without appreciable result. I then endeavoured to open the mouth, but the spasm was by that time extreme, and I could only succeed in introducing my forceps just sufficiently to seize hold of the tip of the tongue and draw it forward. Momentary relief was thus afforded, but, unfortunately the jaws were not sufficiently wide apart, the tongue became jammed between the teeth, and the last condition of that boy was decidedly worse than the first. It was not until the jaws were widely opened and the full extent of the oral airway was established, that the patient could be considered out of danger. As I say, this case is but typical of others that have occurred to me and I doubt not to other anæsthetists. The usual explanations given of the phenomena (*e.g.*, arytaeno-epiglottidean relaxation), did not appear to me to be quite satisfactory, and it was not until some little time after, that the possibility of nasal obstruction being at the bottom of the mischief impressed itself upon my mind. If my views upon the subject are correct, it might be useful in similar cases, *i.e.*, when oral supervenes upon nasal obstruction, to pass into the pharynx, *via* the nostrils, a good sized gum elastic catheter, in order to furnish means for the passage of air beyond the oral obstruction; at any rate, the manœuvre is worth trying. Such a catheter might well be added to the armamentarium of the anæsthetist, for it is quite possible to intubate the larynx with such an instrument, should that proceeding be necessary.

If the naso-pharynx itself is the region involved in the operation, additional elements of difficulty in administering are introduced, such as:—

1. The manipulations of the surgeon. When the post-nasal airway is blocked, and the finger, or an instrument, is thrust into the only channel by which the anæsthetic can be administered, it is hardly surprising that the patient tends to asphyxiate, or that, at best, the narcosis is fitful and uncertain;

2. The profuse hæmorrhage attendant upon most operations in this region. Apart from the possibilities of syncope (*e.g.*, in so-called "bleeders"), and complete asphyxia, an accumulation of blood, mucus, etc., in the pharynx and upper parts of the larynx may act in other ways, not the less dangerous because insidious. Thus the glottis being partly occluded, the actual amount of air passing into the lungs is sensibly diminished, and as the vapour of the anæsthetic employed is, as a rule, heavier than air, the diminution takes place, (especially in the supine position), mainly at the expense of the latter; the vapour, in fact, from sheer force of gravity, gradually tends to displace the air, and to accumulate in the

upper part of the larynx. This accumulation explains, I believe, in great measure, how it is that the cases we are considering are particularly prone to the sudden development, of what I have termed elsewhere, "Toxicological apnoea."¹

Further, with a diminution of inhalatory power, is of necessity associated, diminished expiratory function and pulmonary elimination, and consequent accumulation of anæsthetic vapour in the lungs and blood. Hence it is not uncommon, for attacks of apnoea and syncope to occur some little time *after* the administration has been discontinued.

Finally, although I have happily had no experience myself in the matter, it is usually taught, and seems quite possible, that blood may be inhaled in such quantities, as to give rise subsequently to atelectasis, pneumonia, and other troubles.

ON THE TREATMENT OF SO-CALLED PHTHISIS OF THE LARYNX,

BY DR. JOHN SEDZIAK,

Assistant Physician to the Hospital of the Holy Ghost, in Warsaw.

(Continued from page 238.)

WE now proceed to the consideration of other medicaments used in the treatment of this laryngeal disorder.

2. *Iodoform*.—Among antiseptic drugs iodoform holds undoubtedly one of the first places, in spite of contradiction latterly on the part of the Danish physicians, Heyn and Rovsing, the more so that, thanks to the works of Binz, Buchner, Gosselin,² and others, it is to be seen that Heyn and Rovsing unjustly denied the antiseptic qualities of this drug. In surgery it has already gained extensive application (Mikulicz), along with sublimate and carbolic acid, and it has been pressed into the therapeutics of laryngeal tuberculosis, where it gained many ardent adherents, amongst whom we must particularly mention Schnitzler,³ of Vienna, and Massei, of Naples,³¹ further, Jarvis,⁸⁴ Masini,⁸⁵ Gleitsman,⁸⁶ Solis-Cohen,⁸⁷ Coomes, Geagh, John Mackenzie,⁸⁷ Schech,⁷ Lincoln⁴ (as long ago as 1874), Bectz, and Küssner.⁴ According to the last two authors iodoform is a certain anti-tubercular drug, an opinion which most authors, *e.g.*, Fraenkel,⁴ Blindermann, and others, do not share. On the other hand this drug has excited strong opposition on the part of Lennox Browne,⁸⁷ Schrötter,⁸⁸ B. Fraenkel, Schaeffer, Balmer,³ and others. The beneficial action of iodoform is based upon a quick cleansing of ulcerations, formation of regular granulations, and even the possibility of entire cicatrization of ulcers. Schnitzler recommends iodoform especially in cases of very extensive ulcerative processes in the larynx. According to Heryng, the cases most suitable for treatment with iodoform are

¹ "Lancet," February 16, 1889.

principally those exhibiting superficial ulcerations—especially on the vocal cords, but he doubts if iodoform alone can produce cicatrization of deep ulceration in the larynx. Blindermann is also of the same opinion. From experiments made in the clinic of Jurasz this author obtained excellent results by the means of this drug, but very rarely entire recovery. Schech is of opinion that iodoform has sometimes a very great influence upon diminution of tubercular swellings. Massei and Blindermann likewise are of this opinion.

Some authors ascribe to this drug great importance, as an analgesic remedy in cases of painful swallowing in phthisical patients. Massei especially reported that having applied this drug constantly during six years, he concludes that it even surpasses cocaine for this purpose, the action of the latter being too quick and temporary. Against this statement we energetically protest. This statement has not been approved even by the greatest adherents of iodoform. We, personally, have applied iodoform many times, and must say that we do not belong to the great supporters of this remedy, although we cannot deny that iodoform may have sometimes a very beneficial influence upon ulcerations. Schrötter shares this opinion. We do not believe that iodoform can heal deep tubercular ulcerations in the larynx, and lactic acid is undoubtedly superior. The use of iodoform has besides many objections, which prevent its extensive application; we only mention its disagreeable smell, insupportable to many patients; further, it disturbs digestion (Lublinski); and, lastly, we must often apply it (Massei) three to four times daily, which is quite impossible in practice. Most authors (ourselves included) apply iodoform alone in the form of insufflations, in quantities of one to three grains per dose (Schnitzler). Massei previously uses inhalations of sublimate in ether (1:3 or 4). Schrötter does the same, but this method is not agreeable to patients. In order to mask the disagreeable smell of iodoform, Alvin¹ employed a solution of the drug in *oleo amygdalarum dulcium*, adding essence of bitter almonds. Ileryng used an emulsion of iodoform for injections in doses of one to one and a half grammes daily, which seems to be well supported (naturally preserving precise antisepsis). According to the author the above method is indicated in fresh infiltrations, circumscribed, but not destroyed. Gouguenheim also made sub-mucous injections of iodoform (iodoform in vaseline), in quantities of 1·2—2 centigrammes per dose. The results, obtained by him, cannot, however, be considered striking.

3. *Iodol*.—The disagreeable, and to many patients even insupportable, smell of iodoform led Lublinski² to the idea of substituting for it a drug, which, possessing the antiseptic qualities of iodoform, would at the same time not have its disagreeable qualities. This drug was iodol, or tetraiodpyrol, a preparation containing 88·9 of pure iodine, in the form of powder, or glistening crystals, of yellow brown colour, without smell and taste, and easily soluble in alcohol and ether, though with difficulty in water.² Lublinski tried this drug upon seventy-five patients, in the form of insufflations, once daily, or more rarely (2—3 weekly), in quantities of 0,1—0,2 per dose; in all cases he saw amendment, in two (ulceration of the posterior region and vocal cords) he was able to obtain recovery under

iodol. The beneficial action of iodol was affirmed further by Seifert, of Würzburg,²¹ according to whom iodol has this superiority over iodoform, that it does not act as an irritant. Amongst other authors praising the action of iodol were Willy v. Schoewen,²² and Prior,²³ who ascribed to iodol an especially beneficial influence on the subjective symptoms, ulcerations also cleansing, and sound granulations forming. Among the opponents of iodol are : Lennox Browne,²⁷ Schrötter (who states that the only difference it has from iodoform, is its more agreeable application), Gouguenheim,² and Rosenberg. Heryng prefers emulsion of iodoform, and Massei iodoform. We have applied, and still apply, iodol in the clinic of Dr. Sokolowski very often, either alone or in combination with cocaine, in the proportion of ten to one (10 : 1), for insufflation. In this latter form of application we have noticed satisfactory subjective amendment, namely, easing of painful swallowing, but whether it is due to the iodol, or the cocaine, we do not feel disposed to dogmatise. As to the objective improvement, we have never seen great results, and doubt whether iodol is superior in this respect to iodoform. It is certainly more agreeable in application, and therefore we apply it more willingly, especially in combination with cocaine in the intervals of brushing with lactic acid, because we do not believe that iodol alone can heal deep ulcerations any more than iodoform. As a subsidiary drug, iodol can, to a certain degree, have its importance. We apply it in all cases where lactic acid, for some reason, cannot be applied. Schaeffer²⁴ greatly recommends the following method :—At first cleanse the ulcer by means of injection of a solution of creosote (Cadier), or by means of brushing with 50 per cent. solution of lactic acid, and afterwards insufflate iodol, in combination with one-third part of boric acid. Iodol has certain qualities, which give it superiority over iodoform in absence of smell, and almost of taste ; it disturbs neither appetite nor digestion ; does not act toxically, because it is not so quickly absorbed as iodoform, although application of too great quantities should be avoided (Badt²⁵). Lastly, iodol is a finely divided powder, and for this reason it covers pathological surfaces more equally.

4. *Creosote*.—Cadier, of Paris,² was the first who, in 1878, applied creosote locally in the form of brushings in cases of laryngeal tuberculosis. He employed the following prescription : RR,—Creosote pure de goudron de bois, 1,0 ; spiritus vini, 4,0 ; glycerini, 60,0 ; obtaining favourable results, which found approbation in the works of Pelan and Bordenave,² published in the same year. According to Cadier, creosote acts best in cases of ulcerations of the vocal cords, with affection of the posterior region of the larynx. According to Schmidt,⁴ creosote in the form of brushings irritates ulcers, and therefore this author applied Cadier's solution of creosote (ten to twenty drops) on the base of the tongue, advising the patient not to swallow, but to breathe freely during phonation. The fluid thus remains a longer time in contact with the ulcerations. In general, Schmidt gives adherence to the use of this drug. He saw good results with creosote in certain cases, even healing of ulcerations, and diminution of infiltrations. Balmer¹ mentions that he saw healing of ulcerations after applications of creosote for a week, although in other places new ulcers

were forming. Knauth, of Meran,⁴ did not obtain recoveries, but only amendment. A decisive opponent of this drug is Gouguenheim.⁵ Lublinski,⁶ on the contrary, praises creosote very much, and in nine cases he obtained cicatrization of ulcers under its influence. We have no personal experience as to the local application of this drug in laryngeal tuberculosis. Creosote, indeed, as Guttman's experiments⁷ proved, is a strong antiseptic, and in general seems to have favourable influence upon pulmonary phthisis, but we do not believe that it has any superiority over other antiseptic drugs in laryngeal tuberculosis. On the other hand the local application of creosote is not without objections. It produces loss of taste and a strong burning sensation.

5. *Creolin*.—Of the newest drugs applied to the treatment of laryngeal tuberculosis, creolin has attracted much attention. We shall speak a little farther on of this drug. It is a dark-red, almost thick fluid, smelling like tar. Creolin mixes with water, alcohol, glycerine, oils in every proportion; not, however, with acids (in which it is deposited in the form of great drops). Mixed with water it forms an almost white, or light-yellow fluid (in the sun this fluid takes a brown tinge). It is derived from heavy oils after dry distillation of pit coal. According to the analysis of Pearson,⁸ it is composed of 66 per cent. indifferent coal hydrogens, 27 per cent. phenols (without carbolic acid), 2·2 per cent. organic bases, and 4·4 per cent. ash. Fisher found traces of carbolic acid, and considers creolin as a bye-product in the formation of carbolic acid. Froener⁹ seems to have been the first to recommend creolin as a strongly antiseptic drug (according to Rausche, in even greater degree than carbolic acid), not possessing toxic properties. Creolin, at first employed in England for disinfecting purposes in 1887, speedily came into use in Germany, on account of its unusual cheapness. Esmarch¹⁰ making experiments on this drug, was convinced that the addition of 1 per cent. of creolin to a fluid containing the comma bacilli of cholera, killed them within ten minutes, while carbolic acid, added in the same proportion, even in two days had no influence. Even soap composed of creolin acted more strongly on staphylococcus pyogenes aureus than sublimate soap. According to Penzold,¹¹ 0·4 creolin injected under the skin of a rabbit was fatal. Very favourable results seem to have followed the practical application of this drug, Neudorfer, Rausche¹² (as an antiseptic remedy $\frac{1}{2}$ to 2 per cent with water—best each time freshly prepared). The same author praises $\frac{1}{2}$ to 1 per cent. gargarisms for various diseases of the throat. Further, creolin was applied by Spaeth, Jenner, Korthum,¹³ in obstetrics; later, in otology, by Eitelberg¹⁴ and Urbantschitsch (10 drops in half a litre of water. Schnitzler,¹⁵ in Vienna, applies creolin very extensively in the form of gargarisms (1 to 5 per cent.) for different diseases of the throat. Malinowski, of Warsaw, applied it in diphtheria in children, remarking that its action, although positive, is very slow. We have also come to the same conclusion from applying creolin as a very cheap drug in poor ambulatory practice (from 5 to 10 drops in a glass of water). We must add that these gargarisms are not very agreeable. This drug has been employed by us for some time for the antiseptic cleansing of instruments in the same proportion. Schnitzler applies creolin in form of inhalations

(0.2 to 1 per cent.) and as brushings (1 to 5 per cent.) in laryngeal tuberculosis, but has not published his results. In the clinic of Dr. Sokolowski I began lately to apply creolin in the form of brushings in laryngeal phthisis. I have altogether five precise observations. It is to be understood that such number does not give us a right of absolute judgment of the action of creolin. Nevertheless, I must now report that I cannot consider the results obtained by this drug as at all excellent, although in all cases we were able to remark a subjective amendment (improvement in swallowing), but even this amendment was not constant. On the other hand, objective symptoms in four cases did not show visible change for the better, only in one case there occurred a little relative change in this direction. Altogether, therefore, although with reserve, we should be inclined to say that creolin will not occupy a prominent place among drugs locally applied for the treatment of laryngeal tuberculosis.

In our cases I applied creolin in form of brushings according to the following prescription :—

R—Creolini, 0.25

Aq. dest.

Glycer. aa. 10.0

Ol. ment. pip. gtt. x.—M.D.S.

No. 1. B., aged fifty, a cooper, with hereditary predisposition. For many years cough; for four months painful swallowing and hoarseness. General state, good. In the lungs, indurations at both summits (in sputa bacilli tuberculosi were found). Laryngoscopic appearance: great infiltration of false cords; infiltration of posterior region, with deep ulcers. General treatment: creosote and fish oil. Local treatment: six brushings with creolin (every two days), first three in ambulatory practice. Burning sensation. Result: better swallowing (temporary); for this reason I passed to another drug, viz., menthol, the more so that, while objective symptoms at first remained without change, superficial ulcerations on false cords afterwards formed.

No. 2. L., thirty-six years old, shoemaker. Cough for many years. General state, satisfactory. In the lungs, slight changes at both summits (in sputa tubercle bacilli were found). Hoarseness; dysphagia. Laryngoscopic appearances: infiltration of epiglottis and posterior regions; ulcerations on posterior part of ventricular bands. General treatment: creosote and fish oil. Local treatment: five brushings with creolin (in ambulatory practice). Result: swallowing better; hoarseness without change, as well as objective symptoms; for this reason I passed to lactic acid, with subjective and objective amendment.

No. 3. A., aged twenty-five, locksmith; with hereditary predisposition. Cough for two years; for half a year hoarseness; for three weeks dysphagia. General state, bad. In the lungs, destruction of both summits. Laryngoscopic appearances: infiltration of epiglottis; less of posterior region and false cords. General treatment: creosote. Local treatment: four brushings with creolin (applied to epiglottis especially). Result: better swallowing; infiltrations without changes. Menthol was then resorted to.

No. 4. G., forty years old, official. Cough for many years. General

state, bad. In the lungs, considerable changes (destructive). Hoarseness: painful swallowing. Laryngoscopic appearance: ulcerations on the vocal cords. Local treatment: four brushings with creolin (in ambulatorium). Result: swallowing better and better. Ulcers began to heal. On account of a relapse in the general state (oedema pedum) local treatment was discontinued.

No. 5. U., aged twenty-eight, organist. For nine months cough; for five months dysphagia and hoarseness. General state, almost well. In the lungs, changes, mostly of interstitial nature. Laryngoscopic appearances: infiltration of epiglottis, less of posterior region. Otitis media suppurativa. General treatment: creosote; kefir. Local treatment: three brushings with creolin (especially the epiglottis). Application of creolin to the ear. Result: subjective temporary amendment. Menthol was, however, resorted to.

In the third and fifth cases death ensued. Necropsy showed: in the lungs, the usual destructive form of consumption; in the larynx, extensive destructions (ulcers).

6. *Menthol*.—In the year 1885, in the polyclinic of B. Fraenkel, in Berlin, Rosenberg⁷² tried a new drug, viz., menthol, in laryngeal tuberculosis, and became its ardent adherent. The action of menthol, according to Rosenberg, is threefold: (1) Anaesthetic; (2) analgesic; (3) antiparasitic (Sornani and Brugnatelli). The author applied menthol in oily solutions (from 10 to 20 per cent.) once or twice daily, dropping this solution by means of Braun's syringe, in quantities of from 1 to 2 grammes per dose. Of fifty-seven cases treated by this method, he obtained recovery in nine (diminution of infiltrations, cicatrization of ulcers). Ulcers submit much better to the treatment by menthol than infiltrations. Soon after the first application the ground of the ulcer clears, sound granulations form, and a cicatrix ensues. The patients support this operation very well. He did not remark any more distinct reaction. B. Fraenkel affirmed Rosenberg's results, as also do Beechag,⁷³ McBride, Lennox Browne,⁶⁷ and Brunn⁷⁴ (who recommends menthol in delicate and nervous persons, in robust persons lactic acid). Hyndman⁷⁵ saw good results in employing a spray of alcoholic solution of menthol (5 to 20 per cent). On the other hand, Schröter and Heryng are not adherents of this drug. As to myself, basing my opinion upon, though few, yet exact, observations made in four cases, in the clinic of Dr. Sokolowski, I must say that I was not able to remark any distinctly positive influence. The amendment was principally subjective (swallowing a little better, yet tubercular infiltrations, as well as ulcers remained without changes for the most part. In three cases we applied menthol after a trial of creolin, and it was equally fruitless. We employed in our observations, like Rosenberg, oily solutions (10 to 20 per cent.), dropping it daily in quantities of 1 to 2 grammes. The patients complained of moderate burning of short duration (one of them of the sensation of chills); likewise in cases where creolin was employed.

We report here, in short, the course of four cases precisely observed by us, repeating once more that upon this basis they do not claim to give an absolute judgment of the merits of menthol.

No. 1. This case is the patient noted under creolin, No. 5, with tubercular infiltration of the epiglottis. After unsuccessful results from creolin, we employed menthol five times in the above described manner (10, afterwards 20, per cent.). Swallowing was made a little better (burning was complained of after dropping); infiltration of the epiglottis remained without change. The further treatment was suspended on account of a relapse in the general state, which at last caused the death of the patient, as we have already mentioned.

No. 2. This case is that of the patient noted under creolin, No. 1, with great infiltration of the false cords, and with superficial ulcerations, also with extensive affection of the posterior regions. After brushing with creolin without success, I employed menthol four times, which—except temporary amendment in swallowing—had no influence at all; for this reason we passed on to lactic acid, which we have applied up to now with increasing amendment, subjective and objective.

No. 3. This case is that of the patient noted under creolin, No. 3, with infiltration, especially of the epiglottis, upon which creolin had no influence. We dropped menthol three times (ten per cent.), and the burning in this case was considerable. While great subjective amendment resulted (the patient could swallow better and better), yet the infiltration of the epiglottis remained without change. This patient died in a short time from general marasmus and progression of the pulmonary process. The results of the autopsy have already been mentioned.

No. 4. F., aged fifty-three, musician. Several years ago, syphilis. Laryngoscopic appearance: membrane under the vocal cords. Incision; dilation (method of Schrötter). The anti-syphilitic treatment was without success. Some time after, very slight changes at both summits of the lungs appeared. In the sputa tubercle bacilli were found. Dysphagia, infiltration of the false cords and posterior region, and an ulcer in the neighbourhood of the left processus vocalis. We dropped menthol (10—20 per cent.) three times on the ulcer, which began to clear a little, but swallowing remained without change. Unluckily, the patient did not agree to further treatment, and left the hospital.

(To be concluded.)

INSTRUMENTS, THERAPEUTICS, &c.

VOLTOLINI.—On my Method of Illumination. *Monatssch. für Ohrenheilk.*, No. 2, 1889.

A POLEMICAL article.

Michael.

GÄRTNER.—A Pocket Lamp for Physicians. *Wiener Med. Presse*, No. 10, 1889.

THE author's lamp is both simple and ingenious. The light is derived from a simple candle, and the holder of the candle serves as a handle for

the lamp. In front of the candle is a cylinder of crown glass, 10 centimètres long, and the light is reflected with great clearness. The cylinder can be immediately applied to the spot to be illuminated, and a very strong light can thus be produced without heat. The cylinder can be put into the mouth, or applied to the eyes. It can be placed on the neck or nose, and good illumination can be obtained.

Michael.

ROTH (Vienna).—The Application of Electric-Light to Laryngoscopy and Rhinoscopy. *Wiener Med. Presse, Nos. 10 and 11, 1889.* (A description of Instruments for Electric Illumination.)

THE author uses an instrument similar to Brunton's otoscope, and another for illumination of the retro-nasal space.

Michael.

DIONISIO (Turin).—On Posterior Rhinoscopy, with Palate Hook and Tongue Depressor. *Monatssch. für Ohrenheilk., No. 2, 1889.*

A DESCRIPTION of a new instrument, combining palate hook and tongue depressor.

Michael.

WÖLFLE (Graz).—Intoxication by Cocaine. *Wiener Med. Wochenschr., No. 18, 1889.*

THE author has observed that injections of cocaine in five per cent. solution are without any danger if they are made on the trunk or the extremities, but that injections of the same concentration applied to the face or head sometimes cause intoxication.

Michael.

SANDRAS.—Alterations in the Voice produced by Cocaine. *Soc. de Méd. Pratique, March 28, 1889.*

COCA and cocaine deaden or paralyse the tensor muscles of the vocal cords, and this is proved by drinking slowly a spoonful of cocoa wine, when it is found that the voice is altered in acuity, intensity, and timbre. (Can this experiment be said to be quite conclusive?)

Joal.

MAXWELL, PATRICK W. (Dublin). — A Method of Generating Neutral Fumes of Ammonium Chloride for Inhalation. *British Medical Journal, October 27, 1888.*

A PAPER read in the Section of Otology, British Medical Association's Annual Meeting, 1888.

The author's method is directed to providing the acid and ammonia vapours in proper proportions, so that neither ingredient shall be in excess—a fault of many of the inhalers now in use. This is accomplished by the volatilization by heat of solid ammonium chloride in a specially designed apparatus, an engraving of which illustrates the paper.

Hunter Mackenzie.

CASH, J. THEODORE (Aberdeen).—Introduction to a Discussion on Carbolic Acid and its Allies, including Antipyrin and Antifebrin. *British Medical Journal, November 3, 1888.*

A PAPER read at the Annual Meeting of the British Medical Association, 1888.

The author says, "We find antipyrin of least value in fevers occurring "as concomitants of suppuration. The record in scarlet fever and "diphtheria is against it, and none the less so that its tendency to cause "collapse is increased in these diseases. In the infectious diseases, as a "class, Bungereoth warns against its use Antifebrin has not the "same tendency to produce collapse Resorcin's record in "diphtheria is highly encouraging. Andeer, who treated 222 patients "successfully with it, says that in lighter cases the local treatment with "resorcin crystals, or by means of a concentrated resorcin vaseline "ointment is sufficient to check the disease, whilst in more severe cases "he recommends the simultaneous internal administration." (The dose of resorcin is one to five grains.)

Hunter Mackenzie.

FERNET. — Treatment of Tubercular Ulcerations by Camphorated Naphthol. *Société Thérapeutique, February 27, 1889.*

THE author has successfully employed this medicament in tubercular ulcerations of the tongue. In the case of a man aged forty, who had not been ameliorated by energetic cauterisations with the thermo-cautery, the lingual ulcer was modified in eight days by a daily application of camphorated naphthol. In the case of a young girl, aged seventeen, affected with rebellious lingual ulceration not improved by lactic acid, the condition rapidly amended under naphthol.

Joal.

DUBOUSQUET-LABORDERIE. — Treatment of Whooping Cough by Antipyrin. *Société Thérapeutique, February 27, 1889.*

THE author has employed this treatment for two years, and of a total of ninety-four cases treated in this manner, seventy-one have been materially benefited, particularly in twenty-one cases in which there had been as many as thirty to forty-five attacks in the twenty-four hours.

The dose varied from 30 centigrammes to 1 gramme for children up to three years of age, and from 2 to 4 grammes in older children and adults. The author has never observed any affection of the urinary passages consequent upon this treatment, which is well supported by the patients.

Joal.

OLIVIER. — Treatment of Whooping Cough. *Bulletin de Thérap., March 30, 1889.*

It is necessary to attack and destroy by antiseptic agents the specific microbe, which has its seat, and evolves upon the laryngeal mucous membrane. Unfortunately, the different medicaments used by the author to obtain this end have not given him any very good results, and he is obliged to be content with recommending palliatives and change of air.

Joal.

HEYMANN — Phenacetin: a Remedy for Whooping Cough. *Münch. Med. Woch., No. 12, 1889.*

A RECOMMENDATION of the internal use of this drug, which the author has used with good results.

Michael.

SONNENBERGER (Worms).—**The Specific Treatment of Whooping-Cough with Antipyrine.** *Therapeut. Monatsschrift*, August, 1888.

A RECOMMENDATION of antipyrine. The author administers three or four times the number of centigrammes as the child has years. Michael.

PERCEVAL, MONTAGU (Tasmania).—**Antipyrin in Laryngismus Stridulus.** *Lancet*, November 17, 1888.

A SHORT note of several cases successfully treated by this remedy.

Hunter Mackenzie.

ADAMS, MATTHEW A. (Maidstone).—**Duration of the Infectiveness of Scarlet Fever.** *British Medical Journal*, October 20, 1888.

MR. ADAMS contends that the usual period of six weeks is not a safe limit of infectiveness. "He has several times had reason to know that a convalescent returning home on the forty-third day after the appearance of the rash, has communicated the disease to others, the chief risk being run in the act of kissing."

Hunter Mackenzie.

PASTEUR (London).—**Pulmonary Gangrene Treated by Incision and Drainage.** *British Medical Journal*, October 20, 1888.

A PAPER read before the Clinical Society of London, October 12, 1888. In the case of a boy aged seven years, the œsophagus was found firmly adherent to the right bronchus, and a narrow sinus led from a small opening in the œsophagus to one of the main divisions of this bronchus. It seemed uncertain whether this sinus was owing to a congenital diverticulum, was the remains of a glandular abscess, or was due to the passage of some pointed foreign body from the œsophagus. The pulmonary gangrene was believed to be due to the passage from the œsophagus into the lung of some irritative material (probably decomposing food stuffs) along this sinus.

In the discussion which followed, Dr. Barlow believed that a foreign body had caused the lesions.

Hunter Mackenzie.

GAREL.—**Medical Electricity.** *Paris*, 1889.

AN excellent manual to which specialists will turn with profit. In the first chapter the author deals with electric lighting by fixed and portable apparatus. Garel states that the bichromate of potash pile with porous vase is the best for producing illumination for medical purposes. He deals also with thermic galvano-cautery, and describes various batteries, accumulators, dynamo-electric, and magneto-electric machines in use, and insists on practical facts and points of detail observed by him in his busy medical practice.

Joal.

THOMPSON, E. SYMES (London).—**The Voyage to the Cape and Climate of South Africa.** *British Medical Journal*, November 17, 1888.

A PAPER read before the Medical Society of London, November 12, 1888.

Natal was spoken of as being specially suited for cases of laryngeal

and bronchial irritation, though somewhat too hot and relaxing in ordinary cases of early phthisis.

At its conclusion, Mr. Lennox Browne showed a large number of water-colour sketches of the scenery on the voyage, which excited great admiration.

Hunter Mackenzie.

CHARAZAC.—Sulphur Waters in Tuberculosis. *Rev. Mens. de Laryngol.* April, 1889.

THE author very strongly opposes the administration of sulphur waters in the treatment of laryngeal phthisis, and quotes a number of facts in support of his contentions. Last year (Congrès de Toulouse) the author strongly discountenanced this method of medication, and is more convinced to-day than ever of the positive harm wrought by the use of the Pyrennean sulphur waters, notwithstanding their laudation by Dr. Guinier.

Joal.

TAYLOR, L. A. (Handsworth).—Liquor Sodii Ethylatis in the Treatment of Lupus. *British Medical Journal*, October 6, 1888.

THE medicament was applied to the lupus patches, which were situated on and about the nose, once daily for three days, without an anæsthetic. During the time the solution is being applied, no water should be allowed to touch the face.

Hunter Mackenzie.

HANSEN, KLAUS (Bergen, Norway).—Lupus Treated with Ice. *Medicinsk Revue*, May, 1889.

A SHORT report of a case of lupus of the chin, in which the excessive sensibility and the rapid progress of the disease was successfully treated with ice, applied twice daily, two hours each time.

Holger Mygind.

DIPHTHERIA.

ROSS, MAXWELL.—A Larynx and Trachea from a case of Diphtheria. *Medico-Chirurgical Society of Edinburgh*, Wednesday, June 5, 1889.

THIS specimen was shown at the above meeting. The patient was a girl, aged eighteen months, of a very strumous habit. As the stenosis rapidly increased it was resolved to perform intubation of the larynx. This was done by means of O'Dwyer's instruments, and the ease with which the operation was performed, and the instant relief given, contrasted favourably with the difficulties surrounding the operation of tracheotomy in children of that age. She wore the tube for sixteen hours, when a violent cough occurred, and it was expelled from the mouth. It was replaced within half-an-hour, but the relief was not so great as on the first occasion, and death occurred in about an hour. At the post-mortem examination the membrane was found to have extended

down to the bronchi. Though the case ended fatally, the experience gained was favourable to the operation of intubation. There was no difficulty with the swallowing of liquids; brandy, water, and milk were taken with ease, and even greedily, by the child. Dr. O'Dwyer had pointed out that many of the difficulties in swallowing were due to the condition of the epiglottis rather than the presence of the tube, and in this instance the epiglottis was unaffected. Malposition of the tube might, however, be a cause of difficulty, the apex of the triangular head being turned forward, so as to project against the epiglottis, instead of resting between the arytenoid cartilages, as intended by O'Dwyer.

Maxwell Ross.

IRVING, JOHN (Leytonstone).—**Epidemic Diphtheria.** *British Medical Journal*, December 15, 1888.

THE author narrates some personal observations which tend to confirm the view, "huge collections of decaying vegetable matter, such as stable manure may, by disturbance, generate the disease."

Hunter Mackenzie.

EDITOR OF BRITISH MEDICAL JOURNAL (London).—**Epidemic Diphtheria.** *British Medical Journal*, November 17, 1888.

AN annotation, in which it is affirmed that, "while it will not be denied "that diphtheria is a disease produced by a neglect of sanitary precautions, there is good reason to suspect that it is not always, or indeed "often, produced by ill-laid drains or bad sanitary appliances within a "house. It spreads, probably, generally by infection, but there are clearly "other causes at work. . . . There is good reason to believe that the "accumulation of large masses of decomposing vegetable material in the "neighbourhood of houses, and the neglect to keep the damp walls and "corners of cellars and disused passages clean, may be in some way "responsible for the epidemics of diphtheria which are now so frequent "both in town and country."

Hunter Mackenzie.

WHITE, S. (Sheffield).—**Croup.** *British Medical Journal*, December 1, 1888.

NOTES of a case of membranous croup, read before the Sheffield Medico-Chirurgical Society, November 22, 1888.

Tracheotomy was performed, and recovery ensued.

The author does not believe that such cases are of the nature of diphtheria. He makes some well-worn observations on the indications for the performance of tracheotomy in this disease.

Hunter Mackenzie.

HALL, J. CAMPBELL (Monaghan). **The Treatment of Diphtheria.** *British Medical Journal*, October 27, 1888.

A PAPER read before the North of Ireland Branch of the British Medical Association.

Hunter Mackenzie.

CALLIAS.—**Treatment of Diphtheria.** *Soc. de Méd. Pratique*, March 7, 1889.

THE author recommends application of a solution of resorcin of five to ten

per cent. every two hours, night and day, combined with douches and sprays of a weaker solution. He has employed this method since 1881, and has obtained excellent results. Children submit to this treatment readily, and it is not painful. Joal.

LABBÉ.—Treatment of Diphtheria. *Soc. de Thérapeutique*, April 10, 1889.

IN a discussion on the different methods of treating diphtheria, Labbé remarked that Gaucher's method of treatment had certain drawbacks. The phenol solutions are too concentrated, and produce ulcerations upon which false membranes may appear. Labbé prefers to employ weak phenol solutions, or solutions of borate of soda in glycerine. We do not endorse this opinion. The treatment of Gaucher is the best, and we have personal knowledge of a recent case in which strong phenic solutions successfully treated a case which had resisted other methods of treatment. Joal.

CARRON DE LA CARRIÈRE.—How should Diphtheritic Angina be Treated in Infants? *Journal de Méd.*, Paris, February 27, 1889.

THE author, who is an old *interne* of the Hôpital des Enfants, gives an excellent *résumé* of the remarkable lectures just delivered by Dr. Jules Simon, of which we give an analysis elsewhere. Joal.

PALMER.—Intubation of the Larynx in Diphtheritic Laryngitis. *Medical Science*, Toronto, February, 1889.

DR. PALMER reported nineteen cases with five recoveries. They were all cases of true diphtheria, and operation was delayed in every case till the dyspnoea was extreme and death inevitable. In three cases the malignancy of the disease and sepsis forbade all hope, and intubation was for relief only of the dyspnoea. Three died of sepsis, two of heart failure, and nine of extension of membrane into the bronchi. Of these nine, five gave good promises of recovery for two days after the tube was inserted, the other four were of such malignancy that hope was not entertained. The sources of danger ascribed to intubation as compared with those in tracheotomy are entered upon. This article is well worth perusal: it is well written and most instructive. George W. Major.

LANGLOIS.—Respiratory Variations in Inhalation of Oxygen in Diphtheritics. *Soc. de Biol.*, March 30, 1889.

THE author has made children affected with divers manifestations of diphtheria inhale oxygen. In these subjects he has observed an increase in the number of respiratory movements during the inhalations, and a slight diminution of the dyspnoea. The acceleration of the respiratory rhythm is opposed to the general fact, that during inhalations of oxygen, the respirations are slowed. Under the influence of prolonged asphyxia, the entire organism, and the bulbar centres especially, is depressed, which causes a diminution in the respiratory impulses. Joal.

GRELLET.—Facts relative to the Longevity of the Bacillus of Klebs. *Bulletin Medical*, March 7, 1889.

ROUX and YERSIN place the vitality of diphtheritic virus at five months,

JULES SIMON at six months. The author relates five cases where the vitality of the virus seems pretty conclusively to have lasted from two to five years. Joal.

NOSE AND NASO-PHARYNX.

MACDONALD, GREVILLE (London).—On the Mechanism of the Nose as regards Respiration, Taste, and Smell. *British Medical Journal*, December 1, 1888.

A PAPER read at the Annual Meeting of the British Medical Association, 1888.

The author details some experiments and observations which he has made on the three-fold functions of the nose, of considerable physiological and clinical importance. For an account of these the reader is referred to the original paper, which will well repay perusal. Hunter Mackenzie.

KERMET.—Pathological Opening of the Maxillary Sinus in a Syphilitic Subject. *Journal de Méd. de Paris*, February 17, 1889.

THE case of a cataleptic and syphilitic subject, in whom a loss of substance occurred near the molars, ending in a communication of the maxillary sinus into the mouth. Joal.

TROUSSEAU.—Ocular Reflex Affections of Nasal Origin. *Soc. d'Ophthalmologie*, April 2, 1889.

THE author has observed a certain number of cases of this kind :—

A young girl, eighteen years of age, was only cured of a blepharospasm rebellious to all other treatment, by the ablation of numerous small nasal polypi.

A lady, twenty-five years of age, has a blepharospasm every time that she has an attack of acute coryza.

A man, thirty-five years of age, has been cured of an ophthalmic migraine by extirpation of a number of small polypi.

There also exists a true nasal asthenopia, which only yields to treatment of the pituitary membrane. It is distinguished from other asthenopias by the integrity of refraction, of the conjunctiva and the lachrymal ducts. Joal.

TROUSSEAU.—Ozæna and Infectious Ulcers of the Cornea. *Soc. de l'Elysée*, April 1, 1889.

THE author relates the case of a young girl, strumous in constitution, and affected with a greyish ulcer of the left cornea with hypopion. The lachrymal passage was normal. There was simple ozæna and marked atrophy of the turbinateds. The ulcer had been treated in various ways without success. The ozæna was treated, the nose being disinfected with

douches, and the ulcer was then treated with the galvano-cautery. A cure was obtained, and the hypopion disappeared. Trousseau has observed eleven cases similar to this.

Joal.

NATIER.—Multiple Perforations of the Septum—Semilunar Perforation of the Arch of the Palate on the Right Side—Adhesion of the Posterior Fauical Pillar and Arch of Palate on that Side to the Posterior Wall of the Pharynx. *Annales de la Polyclinique de Bordeaux, January, 1889.*

IN the syphilitic patient, of whose condition the above is a description, the lesions of the arch of the palate and nose were only discovered when vocal disorders had led the patient to seek relief in the clinic of Dr. Moure.

Joal.

ILLINGWORTH, C. R. (Accrington).—Hay Fever. *British Medical Journal, November 3, 1888.*

THE author recommends a nasal douche and spray inhalation of biniodide of mercury (1 in 2000). He narrates a bad case successfully treated by this method.

Hunter Mackenzie.

RUAAULT.—Pathogeny and Treatment of Hay Fever. *Archives de Laryngologie, March and April, 1889.*

THE author examines and discusses the different theories of this disorder which attribute it to pollen, microbes, arthritism and nasal conditions, and concludes that hay fever is a reflex, neuropathic condition of the trigeminal. It is the result of irritation of the terminal nervous filaments of the mucous membrane excited by certain dusts, and notably by the pollen of certain plants. This mechanical or chemical irritation which appears to be due rather to micro-organisms transported to the mucous membranes by these dusts, rather than to the dusts themselves, is capable of producing hay fever only in a certain small number of persons. The cause of this individual predilection is not certain, but it is known that this particular special irritability is especially frequent in individuals affected with hypertrophic rhinitis, and that it is observed most frequently in the gouty, the neurotic, or persons born of gouty or neurotic parents. This work, and that recently published by Natier, opportunely combat the opinions emitted in France recently by Leflaive and Lermoyez.

Joal.

BADEN, G. (Odense, Denmark).—A Case of Rhinolith. *Hospitals Tidende, 1889, No. 2.*

THE patient was a woman, aged forty-five, who for four years had suffered from purulent, and sometimes also sanguinolent, discharge from the right side of the nose; the last two and a half years there had been pains in the right frontal and temporal region, together with giddiness and noises in the ears. There was found a movable hard foreign body, with rather sharp edges, in the right side of the nose, and as attempts to extract it were in vain, it was crushed, and its nucleus was found to be a cherry-stone, about which calcareous matter, consisting of carbonate and phosphate of lime was deposited in layers.

Hoiger Mygind.

JUFFINGER.—**Tubercular Tumour of the Nasal Mucous Membrane.** *Wiener Klin. Wochenschr.*, No. 13, 1889.

THE patient, twenty-one years of age, has lost twelve sisters from phthisis. For some months she has had obstruction of the right nasal passage. A tumour was found on the right side of the septum, and was removed by the galvano-cautery. Some months later recurrence occurred, necessitating a second operation, followed by a third. The microscopical examination showed that the portion removed was a tuberculous tumour. Michael.

LABIT.—**A Case of Purulent Catarrh of the Frontal Sinuses, consequent upon Ablation of Polypi.** *Annales de la Polyclinique de Bordeaux*, January, 1889.

THE case of a patient, who, after being operated upon for mucous polypi, was attacked with violent pains in the head and necrosis of the orifices of the frontal sinus. The author is of opinion that the catarrh of the sinuses was consecutive to the operation for polypi. Dr. Moure cured the patient by injections of two or three drops of creolin in a glass of water. Joal

ARONSOHN (Ems).—**Asthma Artificially Produced in Man.** *Deutsch. Med. Woch.*, No. 17, 1889.

DURING the cauterisation of a nasal tumour the author produced an attack of dyspnoea in a patient previously quite free from asthma. On completely removing the neoplasm the asthma was cured. Michael.

SCHMIEGELOW, E.—**Asthma, especially as Regards its Relation to Nasal Diseases.** *Copenhagen*, 1889, 94 pp.

THE author first gives a historical review of the different theories of the cause and nature of asthma. He adheres to the theory, that asthma is a bulbar neurosis, the principal feature of which is an excessive reflex irritability of the respiratory centre, which irritability can exist together with general nervous debility, or develop after weakening influence, such as hæmorrhages, fevers, etc., but which also can exist in quite healthy persons. In the latter cases, the cause, probably, is to be found in frequent and strong irritations of the respiratory centre, through the nasal fibres of the fifth nerve.

A chapter is devoted to brief descriptions of seventy-one cases of asthma observed by the author; of these sixty were cases of genuine asthma, while in eleven there were only asthma-like symptoms. In most of the seventy-one cases there were found marked morbid changes of the nasal cavity.

The frequency of asthma in relation to nasal diseases was found by the author to be such, that out of five hundred and fourteen cases of chronic rhinitis (observed amongst his private and out-door patients), forty, viz., nearly eight per cent., and out of one hundred and thirty-nine cases of nasal polypi, thirty-one, viz., twenty-two per cent., suffered from asthma, this disease appearing a little more frequently among men than women.

The result of surgical treatment of the nasal diseases in asthmatic patients was observed in fifty cases; out of these seven derived no benefit

from the treatment, eleven were better, and thirty-two were "cured." Out of these thirty-two cured patients, seventeen, however, had a relapse; "several of these relapsed cases, however, were ultimately definitely cured." In all the relapsed cases there was also a relapse of the nasal diseases. In all cases treated by the author the local treatment was supported by general treatment with tonics.

Holger Mygind.

WOLKOWITSCH (Kiew).—On Rhinoscleroma. *Langenbecks Archiv*, Band 38, *Heft*. 23.

THE author gives a review of the history of the disease and of its geographical distribution. In Europe the disease is mostly found in the eastern provinces of Austria and in Russia. In America it is only observed in Central America. He relates the history of eleven cases which he has observed, and gives a table of seventy-six cases collected from other observers, including his own eleven cases. Concerning the localisation of the disease, he says that it usually begins in the deeper parts of the nose, and commonly simultaneously in both sides of the nose. It then progresses to the outer nose, the lip, and to the pharynx, larynx, and trachea. In rare cases the tongue, ear, and eye are affected. The disease is characterized by cartilaginous infiltration of the skin or mucous membrane. The only metamorphosis of the infiltration is a cicatrizing process, never fatty or other degeneration. The disease progresses symmetrically on both halves of the body. The first symptoms are those of a common catarrh of the nose, nasal phonation, and then follows fetid secretion. The disease of the mouth or pharynx causes great pain, and the affection of the trachea renders necessary tracheotomy and the wearing of a permanent cannula. The disease is excessively chronic and progressive. Treatment either surgical or anti-parasitic has up to now been without satisfactory results. The histological and bacteriological description is very extensive, but must be perused in the original.

Michael.

RUAULT.—On a New Method of Treatment of Atrophic Rhinitis and Ozaena. *Archives de Laryngol.*, April, 1889.

RUAULT first cleanses the nasal fossæ of accumulated crusts, then acts upon the mucous membrane with a powerful antiseptic, which produces at once antiseptis and slight irritation of the pituitary mucosa. He prevents drying of the mucous membrane and the secretions, by preserving to the patient the possibility of breathing through the nose. This latter organ is washed out with a weak solution of bicarbonate of soda, the crusts are removed with small forceps, then it is swabbed out with wool moistened with camphorated naphthol in vaseline, and finally vaseline oil is sprayed into the nasal cavity, and the pulverisations are repeated several times a day.

If the naso-pharynx is covered with crusts, it is necessary to remove them, and to swab out the parts with camphorated naphthol or creoline.

The results obtained by this method are superior to those obtained by any other treatment generally adopted. In all the cases of ozaena which Ruault has thus treated he has seen the bad odour diminish or disappear rapidly under the influence of camphorated naphthol.

Joal.

SIEBENMANN.—**Mycosis Leptothricia of the Naso-Pharynx.** *Monats. für Ohrenheilk.*, No. 4, 1889.

A PATIENT, forty-nine years of age, had experienced for three years swelling of the left half of the face, and fetid secretion from the nose. Death occurred from nephritis. In the naso-pharynx was found a dry mass of secretion covered with greenish and whitish masses of *aspergillus fungatus*, *aspergillus nidulus* and *mucor corymbifer*. It was possible that the condition was a post mortem one.

Michael.

GELLÉ.—**Luschka's Bursa and Tornwaldt's Disease.** *Société de Biologie*, April 13, 1889.

THE author presented to the Society a beautiful preparation of a pharynx in which the bursa appeared to be well defined. He holds that this mucous bursa, the pathology of which has given rise to so much discussion in Germany, is an anatomical condition so exceptional that its existence is denied by many anatomists. It can never play the important pathological rôle attributed to it.

Joal.

MICHEL, CARL (Cologne).—**Affections of the Voice produced by slight Pathological Conditions and Anomalies of the Naso-Pharynx.** *Deutsch. Med. Woch.*, No. 20, 1889.

THE singing voice may be deteriorated to a high degree by affections of the naso-pharynx and the tonsils, and specially by hypertrophied tonsils. This is due to impairment of mobility of the velum palati, the contraction of which is necessary to produce high tones.

Michael.

HOVELL, T. MARK (London).—**Adenoid Vegetations of Naso-Pharynx.** *British Medical Journal*, October 20, 1888.

A PAPER read before the South-Eastern Branch of the British Medical Association.

Hunter Mackenzie.

URUNUELA.—**On Adenoid Growths of the Naso-Pharynx.** *Revista de Laringología, Otología, y Rinología, Barcelona*, March, 1889.

AFTER giving a short description of the naso-pharyngeal space, the author refers to the symptoms of these growths. As a means of diagnosis, he prefers digital touch to anterior and posterior rhinoscopy, and to examination with the catheter. For extirpating adenoid tumours he uses forceps with a double angle and crenated spoons, preferring these to caustics, the galvano-cautery, and the cold snare.

Ramon de la Sota.

LUC.—**On Incomplete Operations for Adenoid Vegetations.** *Archives de Laryngol.*, April, 1889.

THE author removes adenoid growths at one sitting under chloroform, employing Loewenberg's forceps as modified by Chatellier. It is important that the operation be complete and radical, and that is difficult to obtain, for generally some portions of the growths are left behind. Luc practises cauterisation for destruction of the remnants of growths left behind, a few days after their ablation.

Joal.

MOUTH, TONGUE, PHARYNX, &c.

SUCKLING, C. W. (Birmingham).—**Recovery from Cancrum Oris.** *British Medical Journal*, October 27, 1888.

THE disease was arrested by the free application of strong nitric acid, after cocainization. The general treatment was of a highly stimulating nature. Hunter Mackenzie.

JONES, J. L. T. (India).—**Cancrum Oris following Acute Dysentery.** *British Medical Journal*, November 3, 1888.

RECORD of a case.

Hunter Mackenzie.

HUTCHINSON, JONATHAN (London).—**Persistent Aptyalism.** *British Medical Journal*, November 3, 1888.

A PAPER read before the Clinical Society of London, October 26, 1888.

The author narrated a case, and gave a brief summary of those (five in number) previously recorded. In none of those cases was there any apparent interference with the process of digestion, which pointed to the probability of the saliva not being so necessary as was formerly thought in the process of digestion. It appeared to act simply as a diluent. The affection sometimes developed suddenly; in one case it required about a month for its production. The cause had not been ascertained, and no treatment had been effectual. Several members took part in the discussion which followed, but without throwing any light upon the pathology or treatment of the affection. Hunter Mackenzie.

FOX, HINGSTON (London).—**Epithelioma of Gum.** *British Medical Journal*, November 24, 1888.

EXHIBITION of patient, aged sixty-four, with a rounded tumour, two inches in diameter, occupying the right gum and hard palate, before the Hunterian Society, November 14, 1888. Hunter Mackenzie.

LOCKWOOD (London).—**Epithelioma of Tongue—Compression of Lingual Artery—Removal—Recovery.** *British Medical Journal*, November 3, 1888.

CLINICAL record of a case, with remarks.

Hunter Mackenzie.

SUCKLING, C. W. (Birmingham).—**Paralysis of the Fifth, Sixth, and Third Cranial Nerves.** *British Medical Journal*, November 17, 1888.

CASE exhibited before the Midland Medical Society, October 17, 1888.

The central lesion was supposed to be syphilitic—probably a gumma. There was anæsthesia of the right half of the mouth, tongue, soft palate, right conjunctiva, and right auditory meatus. The sense of taste was impaired on the right side of the tongue (that half of the tongue being slightly furred), smell was also impaired in the right nostril, especially in

regard to irritating odours. Hearing was slightly impaired on the right side. The patient had improved under iodide of potassium and mercury.

Hunter Mackenzie.

SIMON, CH.—The Neuropathic Tongue. *Thèse, Paris, 1889.*

THE author classifies these affections under the following heads:—(1) sensory; (2) motor; (3) trophic. He deals first with the conditions producing anaesthesia, then with neuralgia, and accepts the term "imaginary ulceration," to which Verneuil has lately called attention, and remarks that the etiological factors concerned in the production of this condition are gout, any prothetic apparatus, tabes, lithiasis, general paralysis, and inflammations of the external auditory canal.

Affections of mobility met with are paralyses, spasms, and tremors. Trophic affections are met with in various affections of the nervous system, and thus we meet with black tongue, in locomotor ataxy with lingual atrophy, and in general paralysis with sclerosis *en plaques*. Joal.

GRIFFITH, J. P. C.—Frederick's Ataxia. *International Journal of the Medical Sciences, October, 1888.*

THE author directs attention to the disturbances of speech met with in this disease, and to certain other minor symptoms and signs relating to the tongue, and to the acts of mastication and deglutition, occasionally present.

Hunter Mackenzie.

TERENKOCZY.—Exhibition of Patients. *Wissenschaftlicher Verein der Militärrärzte der Wiener Garrison, March 23, 1889.*

THE author showed two patients:

1. With tubercular ulcers of the tongue;
2. With psoriasis linguæ, cured by treatment with potass iodide.

Michael.

GREEN, BEAUFOY (Kendal).—Dermoid Cyst of the Tongue. *British Medical Journal, November 3, 1888.*

NOTES of a case communicated to the Clinical Society of London, November 3, 1888.

Mr. BARKER did not think the cases very rare. The cysts were not always in the middle line. They should be dissected out entire, otherwise cervical cellulitis was apt to ensue.

Hunter Mackenzie.

SHEPHERD, F. J.—Rare Anomaly of the Lingual Artery. *Transactions Montreal Medico-Chirurgical Society, February 22, 1889.*

THE lingual artery was given off in common with the superior thyroid artery, opposite the upper border of the thyroid cartilage, from here it passed upwards and inwards towards the median line of the neck upon the thyro-hyoid muscle. It crossed the hyoid bone internal to the lesser cornu, and then immediately pierced the hyo-glossus muscle, and from thence onwards to the tip of the tongue its course was normal. Except the lingual artery be absent—an extremely rare condition—its relation to the great cornu of the hyoid bone is very constant. Surgeons who are

in the habit of ligaturing the linguals before excising the tongue should know of this anomaly. Quain, in his book on the arteries, does not mention it.

George W. Major.

REID, JOHN (Melbourne).—**Smoker's Palate.** *British Medical Journal*, December 8, 1888.

THE author remarks upon the absence of any deviations from the normal appearances in the mouths of smokers as being somewhat striking. In two cases, however, he has seen the palate—chiefly the hard palate—covered with a number of greyish elevations, indented in the centre, and looking like small ulcers. He thinks these small ulcers are caused by the heat, and not by the smoke.

Hunter Mackenzie.

WHETTLE (Brighton).—**Cleft Palate.** *British Medical Journal*, October 27, 1888.

EXHIBITION of patient, with a complete fissure of the soft palate, successfully treated by operation.

MR. CRESSWELL BABER showed a similar case, treated by a vulcanite palate and a soft rubber velum.

Hunter Mackenzie.

JONES, THOMAS (Manchester).—**Case of Tumour of the Hard Palate.** *British Medical Journal*, November 3, 1888.

EXHIBITION of specimen before the Lancashire and Cheshire Branch, British Medical Association, October 23, 1888.

Hunter Mackenzie.

KRONACHER (Munich).—**Case of Cancer of the Hard Palate.** *Deutsch Zeits. für Chirurg.* Band 29, Heft 2 und 3.

A CASE in which a carcinomatous ulcer was operated upon first by the thermo-cautery, and later by extirpation with good result.

Michael.

SUCKLING, C. W. (Birmingham).—**Notes on Multiple Peripheral Neuritis, and its Occurrence in Brass-workers.** *British Medical Journal*, December 15, 1888.

IN the course of this paper, which was read at the annual meeting of the British Medical Association, 1888, the author says: "The pathology of diphtheritic paralysis is, perhaps, not definitely settled, though peripheral neuritis has been found *post mortem*; but it is certain that, clinically, the affection exactly resembles multiple neuritis from alcoholic or lead poisoning . . . There are no symptoms occurring in diphtheritic paralysis which are not also occasionally met with in alcoholic paralysis. Of course the mind is not affected in the former affection . . . The occurrence of anæsthesia and paralysis of the soft palate and fauces, or 'paralysis of accommodation, is diagnostic of the diphtheritic nature of the affection.'" (Bristowe, in an address on the diphtheritic and related forms of paralysis, abstracted in this Journal, vol. ii. p. 228. *et seq.*, says that "while many of the phenomena can be explained on the theory that "are due to spreading neuritis, others seem rather to point to some "spreading central lesion—a sort of wave of slight inflammatory mischief.

"which extends not only through the medulla oblongata and cord, but also along the nerve trunks." *H. McK.*) Hunter Mackenzie.

SPICER, SCANES (London). **Hysterical Affections of the Throat.** *British Medical Journal*, December 15, 1888.

THE author believes that many so-called hysterical affections are due to pathological condition of the tissues at the base of the tongue, to engorgement of the veins in that region, and to an anteflected condition of the epiglottis. Hunter Mackenzie.

SCHWARTZ.—**The Surgical Treatment of Infectious Angina.** *Soc. de Méd. Pratique*, March 21, 1889.

THE author related two cases of this affection. In one, within a few hours considerable tumefaction of the neck, face, and floor of the mouth occurred, giving rise to great difficulty of movement of the jaws, difficulty of deglutition and respiration. In spite of energetic treatment, consisting of extensive incisions, cauterization with the thermo-cautery, and douches of corrosive sublimate, the patient died. In the second case, the infectious phenomena originated in a dental caries, and cure was obtained without surgical intervention.

Prognosis in these cases is grave, and energetic surgical interference is necessary, along with thorough antisepsis of the bucco-pharyngeal cavity. Joal.

RUAULT.—**Tonsillitis and Infectious Angina Consecutive to Intra-nasal Operations.** *Archives de Laryngologie*, April, 1889.

RUAULT has often observed tonsillitis and erythematous angina follow upon operations on the nasal fossæ, especially those upon their posterior inferior portions. He does not think that this is a simple propagation of inflammation consecutive to that resulting from nasal traumatism. It is not probable that it can be an infection from external causes. Ruault admits that a patient may be infected from the intra-nasal wound, and that the angina is the manifestation of the general infection of the organism. Joal.

NATIER.—**Chronic Abscess of the Right Tonsil Simulating a Fibroma.** *Annales de la Polyclinique de Bordeaux*, January, 1889.

IT is as frequent to observe phlegmon or acute abscess of the tonsil as a result of acute anginas, as it is rare to see chronic abscess of these glands. Such a case was observed in Moure's clinic. Joal.

SEACLIFF, J. M. E. (Brighton).—**Night Terror and Screaming in a Child, cured by Removal of the Tonsils.** *Lancet*, October 6, 1888.

THE nature of this article is indicated by the title. Hunter Mackenzie.

McPHEDRAN, A.—"Necrotic Tonsillitis." *Canada Lancet*, June, 1888.

UNDER the title of Necrotic Tonsillitis Dr. McPhedran describes two cases of a somewhat dissimilar nature. These cases were scarcely of a sufficiently severe character to be called gangrenous. The term phleg-

monous would probably be more suitable. Both cases presented patches of membrane, confined, however, to the tonsils. The membrane, if removed, left a bleeding surface. The cervical glands were enlarged and painful. The patches separated by sloughing, and distinct cicatricial contraction followed. No paralytic symptoms followed, and there was no contagion to others. In all such cases where the difficulty of diagnosing from diphtheria is so great, extreme caution is necessary.

George W. Major.

VERDÓS.—**Tonsillar Deafness.** *Revista de Laringología, Otología, y Rinología, Barcelona, March, 1889.*

THE author maintains that, according to his experience, when there is deafness, absolute want of material damage in the auditory organs, and a diseased condition of the tonsils, the former arises from a reflected source, and is subordinated to the latter.

Samon de la Sota.

PLICQUE.—**Critical Study on the Treatment of Malignant Tumours of the Tonsil and the Tonsillar Region.** *Annales des Mal. du Larynx, etc., April, 1889.*

IT is necessary before operating upon the tonsillar tumour to practise rigid antiseptics of the mouth, then to perform tracheotomy, and to employ Trendelenburg's cannula. When buccal ablation is performed either by the curette, amygdalotome, the écraseur, the galvanic loop, or the bistoury, in cases of superficial canceroid, pedunculated polypi, or benign tumours, preliminary tracheotomy may be dispensed with, but it is essential to have at hand the instruments necessary to open the trachea, if requisite, during the operation. Ablation of the tumour by external excision is a very grave operation—of twenty-three operations collected by the author death has supervened nine times and broncho-pneumonias and hæmorrhages are common.

Joal.

MASSE.—**Supra-hyoid Dermoid Tumour.** *Soc. de Chirurgie, February 24, 1889.*

THE author relates the case of a man, twenty-five years of age, who presented in the cervical region, on the left side, a small tumour, situated at equal distances from the angles of the jaw and the great cornu of the hyoid bone. It was of the size of a filbert, and had all the characters of a dermoid cyst. Ablation was performed, and the microscope revealed the presence of hairs in the cavity. Masse discusses the pathological relations of this tumour to the branchial clefts of this region.

Joal.

MACKENZIE, H. W. (London).—**Ulceration of Œsophagus in Diphtheria.** *British Medical Journal, October 20, 1888.*

A SPECIMEN exhibited before the Pathological Society of London, October 16, 1888.

Hunter Mackenzie.

BRAY.—**Œsophageal Obstruction.** *Chatham Medical and Surgical Society, March 4, 1889. Montreal Medical Journal, May, 1889.*

A REPORT of a case of Œsophageal obstruction in a patient aged seventy-six years. Nothing special.

George W. Major.

HOFFMANN (Greifswald).—**Foreign Body in the Œsophagus, with formation of a Diverticulum in this Organ.** *Deutsch. Med. Woch., No. 19, 1889.*

A MAN, thirty-one years of age, in an attempt at suicide, swallowed a piece of broken china. Attempts at extraction failed, and sub-hyoid pharyngotomy was performed. The foreign body was found to be firmly fixed, and could not be extracted through the mouth. Sudden death occurred on the next day. At the autopsy, a hole was found in the wall of the uppermost region of the œsophagus, lined with mucous membrane. The author regards it as an acute diverticulum of the œsophagus.

Michael.

KLEMPERER (Berlin).—**A Case of Cancer of the Œsophagus, with Pressure upon the Heart. Cardiac Gangrene and Death from Cerebral Embolism.** *Deutsch. Med. Woch., No. 19, 1889.*

THE notes of the history of such a case with the post-mortem appearances. The patient was fifty-one years of age, and had stricture of the œsophagus, which was treated with Leyden's permanent cannulas. Sudden death terminated the case, and it was found that the neoplasm had invaded the left cardiac atrium, and metastatic infarcts were found in the brain and abdominal glands.

Michael

LARYNX, TRACHEA, &c.

HOWARD, BENJAMIN (U.S.A.).—**A New and Only Way of Raising the Epiglottis.** *British Medical Journal, November 17, 1888.*

A PAPER read before the Medical Society of London, October 22, 1888.

After some historical and preliminary remarks, the author states that, in a series of experimental observations on the cadaver, he has found in the ordinary supine position three anatomical causes of obstruction lying across the upper airway. These are :—

(1) *The velum palati and uvula.*—The velum nearly approaches or rests upon the posterior wall of the pharynx, whilst the uvula is curled upon itself, almost completely closing the airway at that point.

(2) *The tongue.*—This is invariably found with its dorsum more or less resting upon the posterior wall of the pharynx, and causing sometimes complete obstruction of the breathway.

(3) *The epiglottis.*—This always falls backward over the glottis, its free edge resting upon the posterior wall of the pharynx.

After discussing and showing the inutility of traction of the tongue, the author states that, in the "New and Only Way of Raising the Epiglottis," the central part of the mechanism is the body of the os hyoides. "This is the central link of a three-linked chain. By the lower link, the hyo-epiglottic ligament, the body of the freely-movable hyoid bone is attached to the freely-movable epiglottis below; whilst the upper link, consisting of three pairs of muscles, the genio-hyoides, mylo-hyoides,

"and the anterior bellies of the digastrici, proceeding from the body of the hyoid bone, are attached to the body of the inferior maxilla below. Thus, the body of the inferior maxilla above is coupled to the epiglottis below.

"As the attachments of these muscles to the inferior maxilla are near and on either side of the median line, where is the greatest range of motion, it follows that, if the head be extended but a certain distance, the chain in question becomes straightened and tense. Beyond this point, however slight the additional tension may be, the epiglottis is raised in unison. Continue the extension sufficiently, and the epiglottis becomes instantly, completely, inevitably erect." This invariably takes place, under all circumstances and conditions.

The author next affirms, as a result of his observations and experiments, that the cervical vertebræ may be extended upon themselves to about thirty degrees, and that the occipito-vertebral articulation allows of an extension of sixty degrees—that is, the head and neck, by the exercise of moderate force, are capable of an aggregate extension of ninety degrees. The result of this extension will be to correspondingly enlarge the nasopharynx, and cause the course of the nares to be almost in line with the pharynx. A very forcible pulling forwards of the anterior wall of the pharynx, including to some extent the base of the tongue, will also take place. Gravitation, which previously precipitated the dorsum of the tongue into the pharynx, now precipitates it forward into the mouth, and the velum palati is stretched tightly forwards and downwards behind part of the dorsum of the tongue. In this way the entire pharynx is greatly enlarged throughout, and thus a comparatively free passage is formed from the glottis to the nares.

Consideration is next given to "The Way to Make Complete Extension of the Head and Neck."

"Having, by bringing the patients to the edge of the table or bed, or by elevation of the chest, provided that the head may swing quite free, *with one hand under the chin, and the other on the vertex, steadily, but firmly, carry the head backwards and downwards. The neck will share the motion, which must be continued until the utmost possible extension of both head and neck is obtained.*"

The degree of extension necessary to correct commencing stertor or irregularity of breath is a matter for the operator to determine. But to affect the epiglottis, an extension of from thirty to thirty-five degrees is necessary—that is to say, one would require to "make the line of skin from the chin to the sternum as straight as it can be made, and the complete elevation of the epiglottis is assured." This extension ought to be always rather more than less.

The author makes the casual observations that for tracheotomy this position of extension makes the skin tenser, and the parts beneath accessible and firm. In operations in the naso-pharynx, *e.g.*, the removal of adenoid growths, it greatly enlarges the operative area, and prevents blood, &c., from entering the windpipe. Previous to the administration of anesthetics, the upper air passages, as well as the heart, should be carefully examined. The habit of snoring may be largely avoided by simply using a sufficiently low pillow.

The paper, which is illustrated by diagrams, is well worthy of careful perusal and study.

(This paper was followed, at the next meeting of the Society, by a discussion which elicited little new.)

Hunter Mackenzie.

FOULIS, JAMES (Edinburgh).—**A New and Only Way of Raising the Epiglottis.** *British Medical Journal*, December 8, 1888.

IN reference to the communication of Dr. Howard with the above title (*vide supra*), Dr. Foulis publishes an extract from the *Edinburgh Medical Journal* of July, 1880, in which he conclusively proves that, in cases of anæsthetic asphyxia, the idea of raising the epiglottis, by the medium of its connections with the hyoid bone, had been put into practical operation by him. For this purpose, and also with the view of freeing the dorsum of the tongue from the retro-pharyngeal wall, and rendering tense the ary-epiglottic folds, he has devised a simple instrument called the glos-sotilt. Dr. Foulis makes no mention of the velum palati, and, on the other hand, Dr. Howard says nothing about the ary-epiglottic folds, as causes of obstruction to breathing.

Dr. Foulis aptly remarks that, in Dr. Howard's method, "If the nares "are not clear, air cannot freely enter and pass out of the lungs; hence "the great objection to it."

[We consider this last remark of great importance, on account of the prevalence in our climate of the many forms of nasal obstruction. There can be no doubt whatever that, in 1880, Dr. Foulis had a clear and correct idea as to the mechanical causes of obstructed respiration in chloroform asphyxia, and anticipated Dr. Howard's results in various important respects. The essential differences between Dr. Howard and him appear rather to consist in the methods which they recommend to obviate this. Dr. Foulis advises the use of a special instrument, and frees the mouth for breathing purposes, whilst Dr. Howard dispenses with any instruments, and by extreme extension of the neck, maintains the breathway through the nose. But as many people in average health are quite unable to breathe through their nares, it is obvious one ought not to rely solely on Howard's method, but ought to be prepared, especially in cases of nasal obstruction, to put in force the alternative method of Foulis.—*H. McK.*]

Hunter Mackenzie.

SMYTH, A. C. (Belfast).—**The New Way of Raising the Epiglottis.** *British Medical Journal*, December 15, 1888.

A NOTE of the successful treatment by Howard's method, and artificial respiration of a child, aged four months, who was "choked by a jujube."

Hunter Mackenzie.

STOOKES, ALEXANDER (Liverpool).—**Hypertrophy of Epiglottis.** *British Medical Journal*, November 17, 1888.

A CHILD, aged one year, had suffered for six months from spasmodic obstruction of the larynx, which ultimately caused death. At the necropsy there was found an abnormally large epiglottis, this being from one-third to one-half again as long as it should be, and thick in proportion. The

trachea was rather narrower than usual; there was no other lesion or abnormality.

Hunter Mackenzie.

DUKE, ALEXANDER (Dublin).—**The Position of the Epiglottis in Inversion.** *British Medical Journal*, December 8, 1888.

THE author thinks it probable that the favourable results occasionally met with by inverting the patient during chloroform syncope (as recommended by Nelaton) were due to the raising of the epiglottis, and not, as was always believed, to the additional influx of blood to the brain.

Hunter Mackenzie.

AUDUBERT.—**Different Aspects of the Normal Epiglottis seen with the Laryngoscope.** *Annales de la Polyclinique de Bordeaux*, January, 1889.

THE author has made observations in Dr. Moure's clinic upon the different shapes and forms of the epiglottis, and embodies his results in a series of twenty-eight plates.

Joal.

ZIEGLER (Munich).—**Primary Erysipelas of the Larynx.** *Deutsch Arch. für Klin. Med.*, Band 24, Heft 4.

A PATIENT, twenty-eight years of age, became feverish, and had difficulty of deglutition. The laryngoscope showed a swelling, the size of a bean, of the glosso-epiglottic ligament. The œdema increased to such an extent that tracheotomy had to be performed the next day. Great œdema of the whole epiglottis was now observed with the laryngoscope. After some recurrences the disease was finally cured in a month.

Michael.

LUC.—**Indications for the Treatment of Laryngeal Tuberculosis.** *Revue Générale Thérapeutique et Clinique*, April, 1889.

AN excellent review of the methods now employed of treating laryngeal phthisis.

Joal.

GOUGUENHEIM and TISSIER.—**A Case of Primary Pseudo-polypoid Laryngeal Tuberculosis—Papillomatous Structure of the Tumours—Bacteriological Examination of the Sputa.—Confirmatory Inoculation of a guinea-pig with Fragments of the Intra-laryngeal Tumour. Tuberculation of the animal.** *Annale des Mal. du Larynx, etc.* April, 1889.

THE interesting points of the observation are recorded in the above title.

Joal.

CARTAZ.—**On Tubercular Tumours of the Larynx.** *Archives de Laryngologie*, April, 1889.

IN the larynx tuberculosis may appear under the form of tumour as the first manifestation of the disease. This tumour need not be accompanied with any other obvious lesion of the vocal apparatus, and may be present as the first local tubercular affection. This is a condition passed by in silence by most authors. Isambert, Ariza, John Mackenzie, Schnitzler and Hering, have, however, observed cases of this kind. Gouguenheim and

Tissier in their recent work consecrate a chapter especially to this form of tuberculosis, which they designate "pseudo-polypoid phthisis."

Cartaz relates three cases of primary tumours of the larynx, and he remarks that these growths are usually single, but may be multiple, that they are situated in the inter-arytenoid space and on the true vocal cords, their aspect is very variable, and from their histological constitution they are undoubted tubercular productions.

Joal.

GRÜNWALD (Munich).—Tubercular Abscess of the Cricoid Cartilage.

Munch. Med. Wochenschr., No. 21, 1889.

A PATIENT, thirty-nine years of age, with commencing tuberculosis of the lungs, suffered from increasing dyspnoea of laryngeal origin, which rendered tracheotomy necessary. With the laryngoscope a reddish, sub-glottic tumour was seen, and the extraction of this tumour was followed by excretion of a large quantity of viscid pus, which could be increased by external pressure. Some days later, pus began to flow through the cannula, but the dyspnoea, which had not been completely relieved by the operation of tracheotomy, now ceased to trouble the patient. A month after the patient died from phthisis, and at the autopsy a perichondritic abscess was found with necrosis of the anterior portion of the cricoid cartilage.

Michael.

TISSIER. —Tertiary Syphilis of the Larynx. *Annales des Mal. du Larynx, etc.*, February and March, 1889.

AN excellent study, in which the author gives a review of our present knowledge of the subject, without, however, adding anything new.

Joal.

ONODY.—A New Experimental Method for the Laryngeal Muscles and Nerves. *Berlin Klin. Wochenschr.*, No. 18, 1889.

THE author describes a method of preparation of the nerves and muscles of the larynx in dogs, by which it is possible to irritate and to cut each nerve or muscle alone.

Michael.

CASADESUS.—Remarks on a Case of Hæmorrhagic Laryngitis. *Revista de Laringología, Otolología, y Rinología, Barcelona*, March, 1889.

AFTER being aphonic for two days, a girl, aged twenty years, began to cough and expectorate a little black coagulated blood. During five or six days these symptoms continued, at the end of which Casadesus found the soft palate and pharynx anæmic, the epiglottis healthy, many coagula adherent to the ventricular bands and vocal cords, which were expelled by coughing, after which the mucous membrane was reddened by blood, which two days after was seen to issue from the surface of the right vocal cord at small points. Hæmorrhage disappeared under local applications of astringent substances and ergotine locally applied. Casadesus concludes with a few remarks founded on the cases already published by Garel.

Ramon de la Sota.

ZALESKI.—The Inopportuneness of Aluminium Cannulas in Tracheotomy. *Intern. Klin. Rund.*, No. 18, 1889.

THE author, who sometime ago condemned silver cannulas, now warns

against the use of aluminium, as when acted upon by the secretions a toxic combination is produced. He proposes the use of silver cannulas coated with gold. (All these considerations as to the metal of the cannula are, so far as modern times go, purely theoretical, since no one has observed any case of argyria or other intoxication produced from the wearing of a cannula, or breaking of such a cannula for many years.—*Reporter*).

Michael.

THOMSON, M. (Lincolnshire).—**A Case of Tracheotomy for Foreign Body.** *British Medical Journal*, May 24, 1888.

IN this case the foreign body (a pea) was expelled through the tracheotomy wound.

Hunter Mackenzie.

CARRON DE LA CARRIÈRE.—**How should Tracheotomy be Performed?** *Revue Générale de Thérapeutique et de Clinique*, April 18 and 25, 1889.

A GOOD *résumé* of the different methods recommended for the performance of this operation.

Joaï.

LAFLEUR, H. A.—**Aneurism of the Ascending Arch of the Aorta.** *Transactions of the Montreal Medico-Chirurgical Society*, January 11, 1889.

DR. LAFLEUR presented the specimens and said that the aneurismal dilatation involved the aorta from the semilunar valves to the middle of the transverse arch. There was no distinct sac, the whole of the vessel between these two points being uniformly dilated. From the main dilatation of the aorta, there was a small secondary aneurismal dilatation situated immediately in front of the trachea, just above its bifurcation. This sac measured an inch and a half by one inch, and could be seen upon the tracheal surface as a convex ovoid projection, which in the natural state must have caused nearly complete occlusion of the orifice of the left bronchus. Over this prominence the mucous membrane was inflamed, and through it could be felt the eroded cartilage rings of the trachea, the tracheal wall being almost perforated. The immediate cause of death was double broncho-pneumonia involving the lower lobes of both lungs.

George W. Major.

McPHEDRAN, A.—**Aneurism of the Thoracic Aorta.** *A Clinical Lecture at Toronto General Hospital*, December 17, 1888.

A GOOD exposition of the present state of our knowledge.

George W. Major.

FOWLER, J. K. (London).—**Cases of Aortic Stenosis with Tracheal Murmurs.** *British Medical Journal*, December 22, 1888.

TWO men were exhibited before the Medical Society of London, December 17, 1888, with aortic stenosis, in whom a peculiar puffing murmur, high in tone, was audible over the trachea. The suggestion of the exhibitor that this was due to the compression of the lung by the

hypertrophied left ventricle during contraction was doubted by various members.

Hunter Mackenzie.

ONODY.—Case of Universal Argyria and Laryngeal Cancer. *Monatssch. für Ohrenheilk.*, No. 4, 1889.

THE patient, who had for a long time used inhalations and brushings of a ten per cent. solution of nitrate of silver, for hoarseness, due to laryngeal cancer, acquired an argyrosis of the whole cutis, characterized by a steel grey colour. The *post mortem* examination showed that the argyrosis had also affected the intestines, the glands, and the pia mater. Michael.

BEECHAM (London).—Laryngeal Growth. *British Medical Journal*, December 15, 1888.

NOTES of a case read before the West London Medico-Chirurgical Society, December 7, 1888.

Hunter Mackenzie.

FUNDARENA.—Cyst of the Arytenoid Region. *Revue Mens. de Laryngol.*, April, 1889.

ARYTENOID cysts are rare, which leads the author to record this case, which was that of an individual having a tumour of the size of a nut situated in this region, and who was operated upon by Fauvel's forceps and successfully cured.

Joal.

FUNDARENA.—Laryngeal Cyst. *El Siglo Médico, Madrid*, April 21, 1889.

A COUNTRYMAN, thirty years of age, suffered from dysphagia, dysphonia, and dyspnoea. A laryngoscopical examination showed a smooth, translucent, soft tumour, of the size and shape of a walnut, with a few small vessels ramifying on its surface, blocking up all the posterior half of the laryngeal cavity, and covering the cartilages of Wrisberg, the capitula Santorini, and the posterior two-thirds of the vocal cords. An incision was made into the cyst with Brunn's laryngeal knife, and then by compression with Fauvel's lateral forceps a clear fluid mixed with granular and fatty matter was extruded. It was then possible to determine that it was attached to the mucous membrane over the right arytenoid cartilage. The cystic membrane was removed, and the place of attachment cauterised with chromic acid.

Ramon de la Sota.

SIMON.—Spasm of the Glottis, of Mechanical Origin, in a Girl Nine Months Old. *Crónica Médico-Quirúrgica de la Habana*, 1889.

A CASE of spasm of the glottis, supposed to be of paludial origin, and treated with sulphate of quinine, proved to be produced by an annona (custard apple) seed. Three months after it had penetrated into the right bronchus, as proved on auscultation, it was expelled by a fit of coughing.

Ramon de la Sota.

JUFFINGER.—Contribution to the Casuistics of Foreign Bodies in the Air Passages. *Monatssch. für Ohrenheilk.*, 1889, No. 4.

A PIECE of a dried fruit was inspired into the bronchus, but was coughed out fourteen days later. The patient died from tuberculosis. Michael.

GIL Y ORTEGA.—Foreign Body in the Trachea. *Anales de Medicina y Cirugía de los Niños*, 1889.

A GIRL, aged five years, was holding a pine nut in her mouth, and, in trying to break it with the teeth, it escaped with force, and was introduced by the inspiratory current into the larynx. A dangerous fit of suffocation followed, which soon passed off, but hurried and noisy respiration, disturbance of the voice, flushing of the face, and the symptoms determined by auscultation showed evidence of the pine nut being still in the respiratory passages. Expulsion of the foreign body could neither be obtained by emetics, nor by holding the head down and simultaneously percussing the chest. The family did not agree to the performance of tracheotomy, and the fits of coughing and suffocation returned, to which very soon symptoms of phlogosis of the right bronchus and lung were added, which disappeared at the end of a week, the cough and dyspnœa, however, remaining. Five months afterwards the patient one morning had a very violent fit of coughing, and became livid, but with the force of the cough she expelled the pine nut, and from that moment all trouble disappeared without leaving any vestige.

Ramon de la Sota.

BALL (London).—Hysterical Affections of Vocal Cords. *British Medical Journal*, December 15, 1888.

A PAPER read before the West London Medico-Chirurgical Society, December 7, 1888, which contains nothing new.

Hunter Mackenzie.

SCHEINMANN.—Treatment of Hysterical Aphonia by Suggestion, *Deutsch Med. Woch.*, No. 21, 1889.

THE physician should produce a tune, which the patient is made to imitate during the phonatory position of the glottis.

Michael.

MILSOM.—Nervous Aphonia. Cure by Suggestion. *Annales des Mal. du Larynx, etc.*, April, 1889.

THE case of a lady, aged twenty-two, who was aphonic. With the laryngoscope there was found to be congestion and thickening of the epithelium. During phonation the respiratory glottis remained open. Local application and electricity producing no result, the patient was cured by suggestion.

Joal.

PEYRISSAC. Nervous Aphonia (*a frigore*) in a Child. *Annales de la Polyclinique de Bordeaux*, January, 1889.

THIS was a case of paralysis of the adductors occurring after a chill, parallel to an acute laryngitis of slight intensity. Facts of this kind are rare as regards children.

Joal.

BRESGEN. Hoarseness, its Causes, Importance, and Cure. With an Appendix on the Importance of suppressed Nasal Respiration. *Heuser, Berlin, und Neuwied*, 1889, 37 pages.

A DESCRIPTION written in a popular manner of the different forms of

hoarseness, with the description of the laryngoscopic appearances, and the methods of treatment.

Michael.

PILTAN, ANATOLE.—**Method of Recording the Movements of Vocalisation.** (Proceedings of the Physiological Society, 1889. No. III. May 11).

THE author had made experiments on various singers by means of an elastic bag or special tambour held in contact with the walls of the chest and of the abdomen, and with the front of the larynx by means of a belt, or by a bag adapted to the corset. The bags communicated the slightest movement of the chest or abdomen to a tambour writing on the blackened surface of a revolving cylinder, where they were recorded in the form of curves.

It was observed that voice depends on effort, and that the effort of a good singer consists in upheaving the chest and avoiding contraction of the muscles of the abdominal walls, and that the diaphragm (being lowered according to the pitch or the intensity of the sound) thus becomes the regulator of the expiratory movement.

The longest duration in this produced effort insures the best voice.

The degree of regularity with which these movements are performed determines the evenness of the voice; and the effort of good singers consists less in uttering sounds more or less intense, as in crying, for instance, than in holding them steadily for the longest possible duration. On the contrary, most of the singers having a bad voice called into action the muscles of their abdominal walls.

Efforts are of three kinds:

(1) The general or thoraco-abdominal effort. This first variety includes those movements in which muscles have to interfere for pushing, lifting, pulling, carrying, &c., or again those producing a series of bad tones.

(2) The abdominal or expulsive effort.

(3) The thoracic effort or singer's effort.

The curves registered in simple breathing, speaking low and high, in coughing, groaning, crying, in a violent effort, in blowing in musical instruments, in singing with a bad voice, were demonstrated; and the latter when compared with those of singers having a really *good voice* showed marked differences.

Besides, the author has observed with the aid of a spirometer and a chronograph, that a bad voice could not sustain a sound loudly more than 5 or 6 seconds, whilst a very good voice could sustain it for 30 or 35 seconds.

R. Norris Wolfenden.

BENNETT, S. H. (Dublin).—**Rupture of the Trachea, with Fracture of the Sternum and Rib.** *Dublin Journal of Medical Science*, August, 1888.

DEMONSTRATION of preparations.

Hunter Mackenzie.

MURRAY, M. (London).—**Fracture of Cricoid and Thyroid Cartilages.** *British Medical Journal*, November 10, 1888.

A CARD specimen submitted to the Pathological Society of London, November 6th, 1888.
Hunter Mackenzie.

PYE-SMITH (Sheffield).—**Perichondritis of Larynx.** *British Medical Journal*, December 22, 1888.

SPECIMEN shown to the Medico-Chirurgical Society of Sheffield, December 6, 1888. The nature of the disease causing the perichondritis, is not stated.
Hunter Mackenzie.

BECKER (Würzburg).—**Statistics of Laryngo-fissure.** *Münch. Med. Wech.*, Nos. 16, 17, and 18, 1889.

THE author records some observations not yet published.

1. A patient, fifty-two years of age, had been hoarse for a year and a half. Papillomata were discovered under the vocal cords. Tracheotomy and laryngo-fissure were performed, the neoplasms extirpated with scissors and the galvano-cautery, and the patient was cured.—(Hoffa).

2. A patient, fifty-two years of age, had carcinoma keratoides of the glottis. Tracheotomy and laryngo-fissure were performed, and the patient cured.—(Morian).

3. A girl, eighteen months old, had been tracheotomised six months previously for diphtheria. It was subsequently found impossible to remove the cannula. Laryngotomy was performed, and swelling of the posterior tracheal wall discovered. This was cauterised with the galvano-cautery and the condition was cured.—(Sprengel).

4. A patient, eight months old, had papilloma of the larynx. Laryngotomy was performed, and the tumour removed with scissors and the galvano-cautery. Recurrence occurred, and diphtheria and death resulted.—(Sprengel).

5. A patient, nine years old, had papilloma. Tracheotomy and laryngo-fissure were performed and the condition cured.—(Sprengel).

6. A patient, four years of age, had papilloma of the larynx. Tracheotomy and laryngo-fissure were performed. Recurrence occurred. Tracheotomy was again performed. Diphtheria followed. Intubation was performed without success, and the patient was obliged to wear a permanent cannula.—(Sprengel).

7. A patient, fourteen years of age, had papilloma for which endolaryngeal operation was impossible. Tracheotomy and laryngotomy were performed. Cure was obtained.—(Sprengel).

8. A patient, twenty-three years of age, had multiple papilloma. Tracheotomy and laryngotomy were performed, the neoplasms removed, and a cure resulted.—(Häussner).

Many operations have been performed by Hopmann, viz.: twenty thyrotomies in seventeen patients, and ten laryngo-fissures in eight patients on account of papillomata (Volkman's "Klin. Vorträge," No. 315). In two cases he performed the operation for membranous adhesion of the vocal cords, once congenital, the other time resulting from traumatism. In eight cases the operation was indicated for tubercular and lupoid tumours. The author reviews the cases published up to the present time

since 1878. For papilloma forty-five operations have been performed, twelve for fibroma, twenty-two for malignant tumours, for foreign bodies eleven, and twenty-six for various causes. Four have been performed for chorditis; of the total number of one hundred and twenty operations, seven patients have died from the results of the operation, the other cases were cured. The author concludes from them and other statistics that the operation is not dangerous to life, and not dangerous to phonation, so long as the disease itself has not destroyed the voice. Michael.

NECK, THYROID, &c.

ROBINSON, H. B. (London).—**Cystic Bronchocele.** *British Medical Journal*, November 3, 1888.

EXHIBITION of a case before the Metropolitan Counties Branch, South London District, British Medical Association, October 25, 1888.

Hunter Mackenzie.

STOKER, GEORGE (London).—**Case of Goitre.** *British Medical Journal*, December 1, 1888.

IN this case, which was exhibited before the Medical Society of London, November 25, 1888, the goitrous tumour completely disappeared after galvano-cauterisation of thickened middle turbinated bodies. A second case was mentioned, in which partial disappearance of a goitre had followed similar treatment.

Hunter Mackenzie.

ROBSON, MAYO (Leeds).—**Case of Goitre.** *British Medical Journal*, December 8, 1888.

EXHIBITION of case before the Leeds and West Riding Medico-Chirurgical Society, December 8, 1888.

The goitre pressed on the trachea, and for three years had caused dyspnoea. The constriction could be seen by the laryngoscope. Division of the isthmus by the galvanic *éraseur* ten months previously had reduced the circumference of the neck from $17\frac{1}{2}$ to $14\frac{1}{2}$ inches, and the breathing had become easy.

Hunter Mackenzie.

DUNCAN, JOHN (Edinburgh).—**On the Value of Electrolysis in Angioma and Goitres.** *British Medical Journal*, November 3, 1888.

A PAPER read at the Annual Meeting of the British Medical Association, 1888.

The author says he has not yet had sufficient experiences to be able to state precisely the value of electrolysis in goitres. So far, however, the results have been very encouraging.

Hunter Mackenzie.

BROWNE, LENNOX (London).—**Cases of Partial Removal of Goitres.**
British Medical Journal, December 1, 1888.

EXHIBITION of cases before the Medical Society of London, December 1, 1888.

Mr. Browne had removed either the isthmus, or the isthmus and lobe, in ten cases, with a most satisfactory result in each. He believed that the risk of myxœdema ensuing after entire removal had been exaggerated, but seeing that it did exist, he deemed it better to do a partial operation. The hæmorrhage in these cases was slight, due probably to the author's method of transfixing with a double ligature, and tying the two separate halves.

An unimportant discussion followed.

Hunter Mackenzie.

POLOSSON.—**Constricting Goitre coinciding with an Œsophageal Cancer.** *Provence Médicale, March, 1889.*

IN the presence of an œsophageal cancer, when the obstacle to catheterism is seated in the neck, it is necessary to bear in mind the possibility of a constriction produced by compression from a thyroid tumour. Basing his opinion upon two cases which he has observed, the author emits the hypothesis that cancer of the œsophagus may originate a thyroid congestion, seen as compression or simple thyroid tumefaction.

Joal.

POLHERAT.—**Intra-thoracic Goitre.** *Société Anatomique, March, 1889.*

THE author presented a specimen constituted of a soft intra-thoracic goitre situated behind the aorta and in front of the trachea. The tumour was much lobulated on the surface, pedunculated, and attached to the isthmus by a narrow pedicle. The cervical portion of the thyroid was not hypertrophied. One can imagine all the difficulties which the clinician meets with when a tumour of this kind causes symptoms of intra-thoracic compression.

Joal.

GUYOT.—**The Treatment of Exophthalmic Goitre.** *Soc. Méd. des Hôp., February 22, 1889.*

IN the course of a discussion upon the pathology of Basedow's disease, the author related a typical case observed by himself and Dr. Potain, and cured by tincture of veratrum viride. The disease had existed for three years when this treatment was commenced, and cure had been maintained for three years.

Joal.

GÉRIN-ROYE.—**Cure of a case of Exophthalmic Goitre.** *Soc. Méd. des Hôp., March 8, 1889.*

THE case was related of a woman suffering from Graves' disease, who had severe gastric symptoms. She was cured spontaneously, after having tried without success all the remedies recommended for such cases.

Joal.

PORTER (Sheffield).—**Graves' Disease.** *British Medical Journal, December 1, 1888.*

EXHIBITION of two cases before the Sheffield Medico-Chirurgical Society, November 22, 1888.

Hunter Mackenzie.

HARSANT (Bristol).—**Cancer of Thyroid.** *British Medical Journal, December 1, 1888.*

SPECIMEN exhibited before the Bristol Medico-Chirurgical Society, November 14, 1888.

The exhibitor considered the case one of primary cancer, and remarked on the rarity of the condition.

Hunter Mackenzie.

MORTIMER (Exeter).—**Case of Early Myxœdema of a very Characteristic Nature.** *British Medical Journal, November 3, 1888.*

EXHIBITION of a case before the South-Western Branch, British Medical Association, November 3, 1888.

Hunter Mackenzie.

SHEPHERD, F. J.—**A hitherto undescribed arrangement of the Inferior Thyroid Arteries.** *Transactions Montreal Medico-Chirurgical Society, February 22, 1889.*

IN the specimen both inferior thyroid arteries came off from the right side, and neither was derived from the subclavian. The *right* arose from the right common carotid about one inch from its commencement, and supplied the lower part of the right lobe of the thyroid gland. The *left* was derived from the innominate, crossed in front of the trachea to the left side, and supplied the left thyroid lobe: as it crossed the trachea it gave off a middle thyroid artery to the isthmus.

George W. Major.

SHEPHERD, F. J.—**A very large Thyroidea Ima.** *Transactions Montreal Medico-Chirurgical Society, February 22, 1889.*

THIS vessel arose from the innominate artery, and almost immediately divided into four large trunks, which completely covered the central part of the trachea. In the same case there were two superior laryngeal arteries on the left side, the lower of which was of large size and anastomosed freely with the superior thyroid of the same side.

George W. Major.

DILL, JAMES.—**Accessory Thyroid Gland.** *Transactions Montreal Medico-Chirurgical Society, February 22, 1889.*

THE tumour was about the size of a hen's egg, with a firm, elastic feel, freely removable, and situated directly upon the crico-thyroid space and first two rings of the trachea. It had no definite attachment, but was held in place by dense layers of fibrous tissue. It was easily enucleated, and on section was found to be an irregular thick-walled sac, containing a dark, bloody-looking fluid. Microscopic examination showed that it consisted of thyroid gland tissue, degenerated in the centre. The tumour exerted sufficient pressure to render breathing at times very difficult.

George W. Major.

SPANTON, W. D. (Wolverhampton).—**Large Tumours of the Neck.** *British Medical Journal*, December 22, 1888.

THE tumour was of twenty-seven years' existence, and occupied the whole side of the neck; it pushed the larynx and trachea two inches beyond the middle line, causing considerable dyspnoea. It was clearly adenomatous, and was successfully excised. The author advocates the removal of all such tumours which were uninfluenced by treatment—except in certain tuberculous cases, where it seemed neither safe nor desirable.

Hunter Mackenzie.

MEYER (Hamburg).—**Blood Cysts of the Neck.** *Inaugural Dissertation*, Würzburg, 1889.

A PATIENT, now ten years old, was born with two blueish tumours on the right side of the neck. These tumours were as large as walnuts. When the child was half a year old puncture was made, and this was occasionally repeated. Under this treatment the tumours diminished, but complete cure was not effected. The child is now ten years old (April, 1889), and presents a large tumour commencing at the external part of the sterno-mastoid, and reaching to the vertebral column. Fluctuation was detected in it. Dr. Alsberg removed the tumour by an operation which lasted an hour and a half. In a few days the patient was cured. The author reviews twenty-two cases of similar nature found recorded in medical literature, and discusses the views emitted by various authors as to the nature of such tumours. Microscopical examination of the tumour removed from this case, by Dr. Fütterer, proved it to originate in a vein and it must be regarded as a congenital ectasis of a venous plexus with secondary cavernous metamorphosis of the tissue at its circumference.

Michael.

ANNANDALE.—**Discussion on the Pathology and Treatment of Strumous Glands.** *Medico-Chirurgical Society of Edinburgh*, Wednesday, March 20, 1889.

PROF. ANNANDALE commenced by referring to the looseness of the term "strumous," which could not be considered as equivalent to "tubercular," as it seemed to include a class of cases resembling the tubercular in their behaviour, but which were not tubercular. He considered that it would be better to look on these gland affections as inflammatory, and that the general word "adenitis" should be used to include them all, an attempt being then made to specify or classify the different forms of adenitis as simple, suppurative, tubercular, scarlatinal, etc. The treatment of these conditions could not be carried out without a reference to the cause, which might be local or general, or both. As an example of a local causation frequently overlooked, he mentioned the glandular affections arising from the irritation of "jammed" teeth. He was also of opinion that the whole naso-pharynx and the ear should be carefully examined in searching for other local causes of irritation. Such local causes must be got rid of and the constitution treated, but it was necessary to apply local treatment to the glands themselves. He considered that this should first of all be of a soothing character. Then counter-irritation

should be applied. If tension occurred, even before there were signs of suppuration, relief would be given by puncture with either a tenotomy or a Graefe knife. If suppuration occurred, incision and scraping with a sharp spoon ought to be practised. If it could be done, excision of the gland was the best treatment, but the cases suitable for this were few. Deformed cicatrices should be excised altogether.

Dr. JOHN DUNCAN, in discussing the question as to the mode of entrance of the tubercle bacillus into the glands, argued in favour of the blood-stream being the principal path. Among other points in support of this view, there was the fact that strumous glands were very rarely caused by local strumous disease. He had seen three cases of that rare disease, tubercular ulcer of the tongue, two of which were verified by microscopic examination, and in these the glands were not affected. Strumous diseases of the joints were not prone to produce disease of the glands. He did not deny that local irritation played a part in the production of strumous glands, but this part, that it formed the soil. Two general principles governed the treatment: First, it must be etiological, must consist in the removal of the cause, and Second, every means should be adopted to obtain the rest that was necessary in all inflammatory affections. The subsidiary or local cause should be first removed, after which, as part of the etiological treatment, came the removal of the tissues affected. This might be accomplished by excision or by scraping. Injections of iodine, bichloride of mercury or salicylic acid sometimes gave good results, but excepting in chronic simple adenitis, counter-irritation would prove a failure. It could hardly affect the tubercle bacillus. The rest should be absolute, and was best afforded by the use of some sort of cuirass with a good stock running up from it, and catching by the jaw and occiput so as to hold the head steady.

Mr. CATHCART having contraverted Mr. Duncan's view, that the blood-stream was the principal path by which the tubercle bacilli entered the gland, proceeded to draw attention to a local cause of enlarged cervical glands frequently overlooked, viz., painless enlargements about the fauces, occurring sometimes after a chill, sometimes after an attack of measles. He found a pigment of equal parts of tincture of iodine and glycerine of great value in those affections.

Dr. WOODHEAD pointed out that in the tubercular process, the giant cell was not an essential part, but rather of accidental occurrence. He considered that in struma they had a condition in which the gland was exceedingly ready to undergo caseous degeneration in the presence of a small number of bacilli. The adenoid tissue was weakened so that it was more readily attacked by the tubercular irritant, and broke down under the irritant inflammation, undergoing caseation much more readily than did a healthy gland. He did not agree with Dr. Duncan in regarding the blood stream as the path by which tubercle bacilli entered the glands. When these bacilli made their way into the blood stream, a condition of acute miliary tuberculosis usually occurred. He would be chary of scraping tubercular glands without first applying the cautery. He believed that in a number of cases the history of an acute miliary tuberculosis dated from the scraping of glands; the breaking down of the

capsule and scraping brought the bacilli and their spores into connection with the circulation. The cautery, he thought, would be of more value than any antiseptic. He objected to the injection of bichloride of mercury, which, in the presence of albumen, rapidly lost its action as a germicide, and might also weaken the tissues themselves, so that before they had recuperated the bacilli might have attained the upper hand.

Prof. CHIENE agreed with Dr. Woodhead as to scraping, and the injection of bichloride of mercury. He advocated early excision of enlarged glands, even at the risk of removing a gland affected by a simple adenitis, and considered that hydro-naphthol would prove a safer antiseptic than the bichloride.

Maxwell Ross.

SUTHERLAND, W. D.—**Ligature of the Common Carotid for Arterio-Venous Aneurism.** *Transactions of the Montreal Medico-Chirurgical Society, March 21, 1889.*

A GIRL, aged twenty-four years, was shot in the neck by an ordinary parlour rifle, carrying a bullet the size of a pea. The bullet entered the neck midway between the symphysis and angle of the lower jaw on the left side, passed across the neck, and was found under the skin two inches below the right mastoid process. The right side of the neck was swollen, and a distinct pulsation and thrill were felt in placing the hand over the upper carotid triangle. With the stethoscope a distinct bruit could be heard. The pulsation was arrested by compressing the common carotid in the neck. Temporary obstruction of the carotid by ligating it over a piece of drainage tube, after the manner of Treves, was determined upon. The patient did well for several days, but the ligature loosening, the pulsation in the aneurism returned. She was again placed under ether, and the carotid was tightened in its continuity above the omohyoid. After three weeks the patient was discharged, cured.

George W. Major.

LLOYD, JORDAN (Birmingham).—**Congenital Gumma.** *British Medical Journal, October 27, 1888.*

A GIRL, aged fifteen years, had had swellings for several years in the course of the right sterno-mastoid muscle, supposed to be strumous glands. On operating, however, the whole muscle was found to be a mass of gummatous tissue, and no glands could be seen. There was a collateral history of a syphilitic disease in family.

Hunter Mackenzie.

CARPENTER, G. A. (London).—**Spasmodic Wry-Neck.** *British Medical Journal, November 24, 1888.*

THE patient was a boy, aged seventeen, mentally weak, in whom the complaint had existed for two years. Treatment was quite ineffectual.

Hunter Mackenzie.

SAUNDBY, R. (Birmingham).—**Acromegaly.** *British Medical Journal, October 27, 1888.*

IN addition to hypertrophy of the extremities, there were present (case

exhibited) thickening of the fibro-cartilages of the ears and nose, atrophy of the thyroid gland, and enlargement of the lower jaw. The disease had existed for twenty-one weeks. Thirst had been an early symptom, but had disappeared.

Hunter Mackenzie.

BOND (Leicester).—Surgery of the Parotid Gland.—*British Medical Journal*, November 24, 1888.

THE author read notes of two cases, in which sarcomata had been successfully removed from the parotid, before the Leicester Medical Society, November 2, 1888. In the first case, the resulting facial paralysis, though persistent, did not lead to any inconvenience, and the recovery of the second case was retarded by an attack of acute parotitis.

Hunter Mackenzie.

MORGAN, J. H. (London).—Case of Frontal Meningocele. *British Medical Journal*, November 3, 1888.

EXHIBITION of a child aged sixteen months, before the Medical Society of London, October 29, 1888. The tumour was congenital, and grew at first out of proportion to the growth of the child. It had been tapped, and some of Morton's solution injected, but without apparent result. It was best left alone.

Hunter Mackenzie.

BARKER, F. R. (Medical Staff).—Inoculation of Syphilis by Tattooing. *British Medical Journal*, October 27, 1888.

THE tattooer confessed to having mixed his paints with saliva, and to having put the needles in his mouth. It was observed that he had a slight sore at the left angle of his mouth, and the greater part of his buccal mucous membrane and soft palate was found studded with mucous tubercles. Indications of syphilis were found on the skin and near the anus. Dr. Cousins remarked upon the very unusual appearance of well-marked rupial crusts at the seats of inoculation. All the patients (thirteen out of fifteen inoculated) were inoculated from the same source, and yet they presented very different forms of local inflammation, and widely different skin diseases. The President (Mr. Norman) observed on the rarity of a well-marked rupial eruption as a primary manifestation of syphilis.

(*Apropos* of this paper, Dr. DRYDEN MOFFAT, Glasgow, mentions in the *British Medical Journal*, November 24, 1888, a severe case of syphilis, with the chancre on the lip, in which a copious outbreak of rupia co-existed with the open chancre).

Hunter Mackenzie.

REPORTS OF SOCIETIES.

The British Laryngological and Rhinological Association Meeting, June 26th, 1889.

THE following papers, &c., were read :—

“Diseases of the Glandular Structures of the Pharynx and Naso-Pharynx.” Discussion introduced by Mr. T. MARK HOVELL and Dr. WRIGHT WILSON.

“Gouty Sore Throat.” Discussion introduced by SIR MORELL MACKENZIE.

“Lupus of the Throat and Nose.” By Dr. M. HUNT.

“The Hyo-Epiglottic Membrane.” Professor MAYO COLLIER.

An Exhibition of Instruments and Appliances used in the diagnosis and treatment of Diseases of the Throat and Nose was given by Messrs. Weiss, Mayer & Meltzer, Coxeter, and Thistleton.

NEW PREPARATIONS.

Kronenquelle Water. (Schacht and Co.)

THE Salzbrunn Kronenquelle is situated in Prussian Silesia, and the mineral water, which is perfectly clear and colourless, and slightly effervescent from admixture with carbonic acid, is highly recommended for the treatment of gout and disorders in which uric acid and the urates are present in excess in the system. The water has a slightly pungent but not disagreeable taste, and is eminently fitted for table use, and it has not the disadvantage common to many mineral waters of causing flatulence. The very small quantity of iron which it also contains (and which is deposited in the bottled waters in small flakes as hydroxide) is no contra-indication to the use of the water for the gouty and rheumatic diatheses. Some physicians use Kronenquelle water now in preference to any other alkaline waters for these special disorders. Nearly half a million bottles of this water were exported in 1886, and the number has since largely increased. It belongs to the group known as soda-lithia waters, and it contains about $15\frac{1}{2}$ grains of various bicarbonates in every

16 ounces of the water. We have no doubt that this mineral water is one of the most serviceable we now possess for all the purposes for which the weaker alkaline waters are generally prescribed, and that it possesses distinct advantages over most of the waters of this kind now in use.

"Jeyes' Fluid." (Jeyes' Sanitary Compound Company, Limited.)

WE have before spoken at length of the value of the compounds manufactured by this Company. The fundamental constitution of this "Fluid" is *Creolin*, an antiseptic and anti-bactericide, which has been proved to be superior to any other. We are in the habit of using solutions of creolin of various strengths for cleansing and antiseptics in throat and nose conditions, using Jeyes' compounds for this purpose. It is far preferable to the douches and washes containing carbolic acid, which are so often prescribed for these purposes. The only other bactericide which can compare with it is corrosive sublimate, over which creolin possesses the very distinct advantage that it is absolutely harmless to the individual. Creolin is now most extensively used in most of the European clinics. We have found it a most effective cleanser for the nose and larynx, and have lately used it with excellent effect in purulent conditions of the antrum of Highmore. Fresh testimony to its value comes from Dr. Bevan Rake, of Trinidad, who reports that he has used the pure solution of Jeyes' fluid for destruction of the granulations and nodules of leprosy, and promoting cicatrization. He also uses weak solutions of 2—5 per cent. as a lotion for dressing leprosy ulcers and eczema. We have no hesitation in saying that Jeyes' preparations are the best antiseptics for general use and local application that we possess.

Vinolia Cream and Soap. (Roberts and Co.)

DR. MILNER FOTHERGILL reported that Vinolia soap, containing a superabundance of cream, "is scientifically perfection," and "those with "a tender, sensitive skin, liable to break out in eruptions, should use no "other, and as to the cream we believe it to be quite as good." In cases of hay fever and spasmodic sneezing, when the mucous membrane of the nose is congested and hypersensitive, we have found it an excellent application, and we order the patient to smear the inside of the nose with the cream applied on a camel's hair brush. It is a soothing application, and protects the mucous membrane from external irritants (dust, &c.). It is, moreover, a very elegant preparation.

"Pure Hordeum" Malt Extract. (Løefund and Co.)

THE Malt Extracts and "Hordeum" Compounds of this Company are well known. This extract is made by concentration at the lowest practicable temperature in vacuo, and from the finest Bavarian barley,

which contains an excess of nitrogenous matters. The preparations, moreover, keep well, and have no tendency to mould or ferment. As to their nutritive value, these extracts are of the highest value, and they will be found to be an excellent substitute for cod liver oil. The "Cream Emulsion," which is prepared from the best fresh cream, and is an emulsion of fat and Hordeum malt extract, is an elegant preparation, and most palatable. These preparations will be found to be of the greatest possible therapeutic value in all wasting diseases, such as phthisis.

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GOUT IN THE THROAT.¹

By SIR MORELL MACKENZIE, M.D.

THE term "gout," has no doubt served a very useful purpose to the medical practitioner. There scarcely exists an affection which has proved at all intractable in the hands of a physician which has not been attributed to gout. It is considered a satisfactory explanation, and an ample justification of any shortcomings as regards the cure of a patient, if the malady can be attributed to gout; sometimes it is called "suppressed gout," sometimes "hereditary gout," sometimes it is only a "gouty tendency," whilst occasionally it is simply "gout." In fact, as I have said elsewhere, gout is the last resource of destitute diagnosticians. Still, after making all allowances, it cannot be denied that gout does explain some obscure phenomena, and though the severer forms of this disease are by no means common in the present day, yet one meets with frequent evidence of it in a milder form. I do not consider that it is by any means common in the throat, but in the course of a long and somewhat large experience, I have met with a few cases. I may premise, however, that many patients consulting me have stated, that according to the opinion of their regular medical attendant, they were suffering from "gouty disease of the throat." Thus I have seen elongated uvula, enlarged tonsils, chronic follicular disease, granular pharynx, and growths in the larynx always attributed to the same cause. For my part, I have never admitted a case to be gout unless there have been distinct proofs of its existence. The only absolute proof which I admit is, that the sufferer has some other distinct signs of gout. These signs may consist either in the fact of the patient suffering from some overt manifestations of gout, such as enlargements of the small joints of one or more of the extremities, or the evidence may rest on the supervention of acute gout in some other part of the body, with the simultaneous disappearance of an inflammatory affections from the larynx

¹ Paper read at the Meeting of The British Laryngological Association, June 26, 1889.

It is scarcely necessary to call the attention of such an audience to the fact, that not every disease occurring in a person of gouty habit is necessarily due to gout. A person who is affected with gout, may be attacked with septic pneumonia or cardiac disease, just as he may break his leg or cut his finger, quite independently of any gouty diathesis, and it must not be inferred that every disease occurring in a person afflicted with gout is necessarily due to that dyscrasia. Evidence may also be sometimes obtained as the result of treatment. This kind of proof, however, should only be accepted when it is very conclusive, that is to say, when treatment is entirely confined to constitutional measures, no local remedies being employed. In doubtful cases the conditions of the urine may afford valuable means of diagnosis, the total amount of uric acid being less than normal. By giving a few typical cases, I think the ground will be completely covered.

CASE I. Acute œdema of the uvula disappearing upon sudden development of gouty inflammation of the big toe.

Mr. W., aged forty-seven, who had occasionally consulted me previously, summoned me, in a very pressing way, to see him in January, 1874. According to his statement, he had caught cold a night or two before, and on this account he had stopped indoors and used a wet compress; but instead of being better, was gradually getting worse. On examining the throat I found the uvula inflamed and swollen, so that it had very much the shape of a muscatel grape. I observed that the uvula was redder than I had usually seen it in cases of œdema, but I looked upon this as an accidental feature, and did not attach any importance to it. I applied a sedative powder, ordered a purgative, and left the patient, thinking that most likely I should have either to puncture the uvula or amputate it on the following day. On making my next visit, I found that the swelling of the uvula had entirely disappeared, and that the patient was suffering from typical podagra. I treated the case according to the old fashioned methods, and a good recovery took place.

CASE II. Chronic inflammation of the posterior pillars of the fauces occurring in a patient suffering from long standing gouty disease of several joints of the fingers of both hands.

In the year 1880 I was consulted by a gentleman, aged sixty, on account of a chronic affection of the throat. He stated that he had had a variety of treatment before he came under my care, but had derived no benefit. The patient looked more like seventy years old than sixty—his real age. He was very anæmic, and had gouty enlargement of several of the joints of the fingers of both hands; the feet were not affected. On examining the throat, I found great relaxation and elongation of the uvula, and swelling and marked congestion of the posterior pillar of the fauces. The posterior wall of the pharynx was fairly healthy, and the larynx was also quite normal. I recommended amputation of the uvula, but the patient would not hear of it, and I was obliged to satisfy myself with local astringents. So little result was produced by this treatment, however, that at the end of the month the patient consented that I should remove the greater portion of his uvula. The wound healed well, but the patient derived very little benefit from the operation. In the meantime I

treated the disease in the pharynx with mild astringents, sedatives, and alkaline ; the condition of the posterior pillars remained unchanged. I had not hitherto used any remedies calculated to control the gouty condition, partly because the patient had always been very careful in his diet, and partly because he had previously been under the care of a physician, who seldom fails to detect the presence of gout. In consequence of the obstinacy of the affection, I made a careful examination of the urine, and found that in forty-eight hours there was a considerable deficiency of uric acid. I treated this patient with colchicum, mild purgatives, and alkalis, and at the end of six weeks, the congestion of the throat had entirely disappeared.

CASE III. Gouty deposit around the crico-arytenoid joints on both sides, causing permanent dysphonia.

Mrs. D., aged forty-one, consulted me in the year 1883 on account of a weak voice, which had existed for seven years. She had been treated both by constitutional and local remedies, but had never derived any benefit. Her father and grandfather had both been martyrs to gout, but neither her hands nor feet were affected by that complaint. There was, however, a slight deposit in the lobule of the left ear. The pharynx was found to be somewhat congested, and there was irregular enlargement of the capitula Santorini and subjacent part on both sides. Both the vocal cords and the ventricular bands were red, and the former did not meet one another on attempted phonation. On deep inspiration, a round projection could be seen on the cartilaginous portion of the right vocal cord, reminding one of the spurs frequently thrown out from the *septum nasi*. Examined with the laryngeal sound the projection was found to be extremely hard. I burnt this projection twice with electric cautery, and endeavoured to seize it with my antero-posterior forceps, but they always slipped off. It was evident from the history of the case that the enlargement had existed for years, and that constitutional treatment would be of no avail, and I was therefore obliged to give up all hopes of effecting a cure.

CASE IV. Gouty inflammation producing fungous ulceration of the left ventricular band resembling cancer.

The patient, Mr. D. L., in this instance, was a gentleman who had occasionally been under my care for many years, but in 1874 or 1875 he consulted me on account of hoarseness and slight dyspnoea. On examining the throat, I found a red, angry-looking outgrowth projecting from the left ventricular band. Soothing inhalations and sedative insufflations were employed, and both mercury and iodide of potassium were given for several weeks without any apparent benefit, when, one day, an ulcer was noted in the centre of the growth. It soon became deeply excavated, and altogether had a very alarming appearance. In fact, the case was one extraordinarily like cancer, and I thought it right to inform my patient as to my suspicions. He went over to Paris, without informing me of his intention, and saw Dr. Krishaber, without telling him my opinion. This physician unhesitatingly pronounced the case to be one of cancer. My patient was now very much alarmed, and consulted me as to the adoption of radical measures. I told him that extirpation of the larynx could be

performed, and explained to him the danger and the advantages of that operation. The gentleman who was a Pole by birth, and a cosmopolitan by habit, happened to be a friend of Professor Langenbeck, of Berlin, and to him he paid a visit. I was rather surprised at my patient's sudden disappearance, but made no enquiries about him, thinking that he had most likely consulted some other physician in London.

Six weeks later, Mr. D. L., called upon me to exhibit himself as completely cured: he informed me that Langenbeck had strongly advised him not to have extirpation of the larynx performed, or even partial resection, and told him that he considered these operations most dangerous and unsatisfactory in their results. Langenbeck urged him to try the waters of Wiesbaden, to which place he immediately resorted. He told me that at the end of ten days he found considerable improvement, and that his voice became much stronger, and that after taking the waters for three weeks he was completely cured, though he thought it better to remain a week longer. On examining the throat, beyond a slight general congestion of the larynx, there was nothing abnormal.

Considering that cancer is in most cases easily recognizable, it is very remarkable that a case of gout should have been mistaken for malignant disease by two practitioners of large experience, and the fact certainly points to the probability that other less remarkable cases of gout may occasionally be overlooked or mistaken for other diseases.

ON THE TREATMENT OF SO-CALLED PHTHISIS OF THE LARYNX,

BY DR. JOHN SEDZIAK,

Assistant Physician to the Hospital of the Holy Ghost, in Warsaw.

(Concluded from page 276.)

7. *Boric acid*.—Boric acid belongs to the antiseptic drugs, and was formerly very often applied, but nowadays this remedy possesses few adherents. Amongst these latter especially is Schech,³ who ascribes to boric acid a better result than to iodoform, with which Gouguenheim does not agree. Amongst the adherents of this drug are also Bresgen and Schaeffer.^{3c} Heryng, on the other hand, ascribes to it an irritant action on the stomach. This author recommends for the disinfection of secretions in cases of abundant suppuration of ulcers the mixture of boric acid and iodoform (4:1). We can apply boric acid either in the form of insufflations alone, or *aa* with *pulv. gum. mim.* in quantities of 0.2—0.5 daily, or in the form of inhalations (1—4 per cent). The most ardent adherent of boric acid is Blindermann,⁴ who made experiments with this drug in the clinic of Jurasz, where for six or seven years boric acid has been generally applied, especially in the form of insufflations, rarely

inhalation (3—5 per cent.), three times daily for ten minutes each sitting. According to Blindermann, the positive qualities of this drug are the following :—(1) It does not irritate at all, or very little ; (2) it is without smell ; (3) it is almost without taste. The inflammatory process diminishes under boric acid ; the ulcers after some days become more healthy in appearance, with a tendency to cicatrization. Even great loss of substance in a relatively short time covers with sound granulations, and entire recovery is not rare. The author reports two cases confirmatory of the latter statement. In one iodoform was applied without success—there were ulcers on the vocal cords—boric acid produced entire recovery (although there was a relapse of the disease) ; in the second case carbolic acid, iodoform, finally lactic acid, remained without success, while boric acid only produced a favourable action. As to ourselves, we formerly applied this drug very often in the form of insufflations, sometimes with positive results, but never could we observe the cicatrization of tubercular ulcers by means of boric acid, so that we are of opinion that nowadays we possess many more useful drugs, and have, therefore, latterly hardly ever used this drug in laryngeal tuberculosis. Sometimes, however, we prescribe it still in the form of inhalations (1—4 per cent.).

8. *Carbolic acid*.—Latterly carbolic acid (in our opinion unjustly) has almost entirely been removed from the list of drugs recommended in laryngeal tuberculosis. Yet this drug has its tradition. In the year 1880 M. Schmidt⁴ recommended the use of carbolic acid, as follows : in cases of anæmic mucous membranes a tablespoonful of a two per cent. carbolic acid solution to half a litre of decoction of boiling camomile (inspiring for five minutes three to four times daily) ; in cases of great redness, instead of camomile (a little irritating), he employed only water. During three years this author treated three hundred and nineteen cases of laryngeal tuberculosis, and of these twenty recovered by means of carbolic acid (although in these cases he also applied incisions). According to this author, superficial ulcerations heal after some weeks ; the deeper ones require a longer time. Schech, Moure,⁴ and Sokolowski confirmed also Schmidt's results. On the other hand, Löri and Krishaber⁴ deny this drug to have therapeutic properties. Blindermann mentions that in the clinic of Jurasz carbolic acid was applied for a long time and very frequently in laryngeal tuberculosis with very successful results. It is there applied in the form of inhalations (one to two per cent. two or three times daily for ten minutes). In all cases the appearance of ulcers was made better ; in one, after four weeks' application, entire recovery (although afterwards relapse took place) ensued. We have applied carbolic acid for a long time in the clinic of Dr. Sokolowski, and we consider it, as a drug, useful in very many cases, though we have not seen entire recovery from it, but amendment very often. Where local treatment in the form of brushings, lactic acid or insufflations (iodoform, etc.) cannot be applied (weakness of the patients, residence in the country), inhalations of carbolic acid are recommended ; sometimes they may even have some influence upon the amendment of swallowing, of which I in some cases have had occasion to convince myself.

9. *Sublimate* (Hg. Cl₂).—It is astonishing that a drug possessing such

strong antiseptic properties as sublimate has been so rarely applied in laryngeal tuberculosis. Very probably what has prevented its extensive application has been the fear of intoxication, so easily produced in the application of sublimate. Balmer⁴ applied this drug in twelve cases, but did not remark successful action, but rather deterioration. On the other hand, Lindsay Porteus^{1,6} cites one case of laryngeal tuberculosis benefited by means of sublimate spray. John Mackenzie¹⁰⁷ also applied sublimate (1 : 2000) with success. Massei⁷³ at first employed sublimate only in the form of inhalations (1 : 1000) as a preliminary step before the application of iodoform. Latterly this author¹⁰⁵ has constantly employed sublimate (1 : 2000) with very good results in laryngeal tuberculosis. As we do not ourselves possess any experience we cannot say anything of this drug, but we do not believe that sublimate can have any superiority over other antiseptic drugs—for instance, carbolic acid.

10. *Charcoal*.—This preparation, also having antiseptic qualities, was tried by Blindermann,⁴ in the clinic of Jurasz in Heidelberg, in three cases of laryngeal tuberculosis in the form of insufflations; the results did not seem to be very encouraging, although sometimes he could remark the clearing up of ulcers. On the other hand, it produced disagreeable sensations (choking, cough, etc.).

Besides these drugs, of which we have spoken more or less at length, there exist still a whole series of others which have been recommended in laryngeal tuberculosis. These, belonging mostly to the group of antiseptics, are in most cases unsuccessful, and, as regards the therapy of laryngeal phthisis, entirely superfluous. We, however, make short reference to them.

11. *Salol* in the year 1887 was applied by Seifert⁴ with no particular result. Nor did Gouguenheim⁵ see any amendment from this drug.

12. *Natrum benzoicum*, still ardently recommended by Rokitsansky⁴ in laryngeal as well as pulmonary consumption, has fallen out of use.

13. *Hot air* was recommended in form of inspiratory inhalations in laryngeal tuberculosis by Fournier,^{1,9} who started from this basis, that tubercle bacilli are destroyed by a temperature above 41°.

14. Jacobelli¹¹² recommends inhalations of *oleum terebinthine* and *aqua calcis*.

15. Woakes¹¹¹ ardently recommends in laryngeal phthisis inhalations of vapour of *kali sulphuricum*.

16. Char. Warden¹¹² recommends *thymol*. This latter drug we also prescribe sometimes in the form of inhalations (1 : 10 spir., five to eight drops in a small glass of water, but we do not ascribe to it any great importance.

17. Rethi¹¹³ employs locally in laryngeal tuberculosis the treatment recommended by Kolischer for tubercular processes in the bones, viz., *Calcium phosphoricum*, according to the following formula :—

Rp.—Calc. phosph. neutr. 5,0.

Aquæ destillatæ 50,0. Dein adde sensim ac. phosph. q. s. ad solut. perf. Filtra adde ac. phosph. dil. 0,6.

Aq. dest. q. s. ad. 100,0. Ds, inject. or brush.

Schnitzler,¹¹⁴ on the other hand, employs the following mixture :—

Rp.—Cocaini 0,2.

Calc. phosph. 10,0.

Ol. menth. pip. gtt. x.

This author mentions that he saw under this treatment clearing of ulcerations, diminution of swellings, and sometimes even recovery.

18. The application of *bacteriotherapy* to laryngeal tuberculosis is reported by Roquer y Casadesus, of Barcelona,¹¹⁵ who in one case seemed successfully to apply pure cultures of *bacterium termo* in the form of pulverisation, inhalation, and brushings.

19. Fronstein¹¹⁶ reports that he sometimes saw splendid results from *resorcin* in the form of inhalations (two per cent.), as well as brushings (10—20 per cent.)

20. *Iodine* primarily applied by Isambert, is used by Gouguenheim,⁵ especially in tubercular growths without extensive ulcerations. In some cases we have also applied iodine as Lugol's solution (1 or 1½ to 2 per cent.) in the form of brushings, but we have never remarked any very favourable action.

21. In some cases of laryngeal phthisis we have applied, in the clinic of Dr. Sokolowski, *hydrate of chloral*, a drug which possesses distinct antiseptic qualities (Keen¹¹⁷). The brushing of solutions of five to ten per cent. gave us relatively satisfactory results.

22. *Argentum nitricum* formerly was greatly used in laryngeal phthisis. Amendment in the objective state of the larynx, and even recovery was ascribed to it. Krishaber⁵ preferred the use of nitrate of silver *in substantia*, Isambert in solution (1 : 30). Marcet also applied this drug successfully in laryngeal tuberculosis. But since the discovery of Koch, and since the introduction into pulmonary and laryngeal therapeutics of antiseptics, this drug has been abandoned. Among its opponents are Gouguenheim,⁵ and especially Stoerk, who ascribes to nitrate of silver a noxious action—namely, artificial loss of substance.

23. *Ferrum sesquichloratum* is applied by Morell Mackenzie⁵ in solution 1 : 30. Gouguenheim is opposed to the use of this drug.

24. *Zincum chloratum*, employed by Isambert⁵ in solutions 1 : 50—1 : 25, does not find an adherent in Gouguenheim.

We have here a series of drugs, especially belonging to the antiseptic group, which have been recommended for laryngeal tuberculosis. Their number, as we see, is enormous. Although the greater number of these remedies can be put aside, as regards the therapeutics of laryngeal phthisis, without any disadvantage, they are evidence of the fact how much the minds of physicians have laboured, and still labour, in order to discover a drug which can overcome this destructive disease. We ought not, however, to submit to pessimism, but persist in therapeutical experiments. Meanwhile, we may be comforted with this conviction, that we are not so impotent as formerly in the treatment of this dreadful disease, so long considered incurable. We possess besides, unquestionably useful drugs (lactic acid, etc.), another therapeutic method, new indeed, but already abundant in positive results, *i.e.*, the surgical method, with which is closely connected the names of Moritz Schmidt, and Heryng. To this method we must now draw attention—speaking first, however,

briefly of the application of chromic acid and the galvano-cautery in laryngeal tuberculosis.

Chromic acid.—Although in the year 1878, Pelan, in Paris, observed the favourable action of chromic acid upon tubercular ulcers, yet the merit of the introduction of this drug into the therapeutics of diseases of the nose, throat, and larynx, and especially in laryngeal phthisis, belongs to Heryng. This author, in the year 1884, published a large work upon the application of this drug.¹¹³ He applies chromic acid by fusing it on the silver probe. In order to avoid acute intoxication, he advises drinking before the operation a solution of soda (5j : ʒijj); by this means any acid swallowed is rendered innocuous. In cauterising the larynx with chromic acid we must proceed cautiously, especially in persons previously unaccustomed to local treatment; the first cauterisations must be made superficially, and should be of short duration, because we cannot be sure what reaction will ensue. In persons inclined to vomit, this may be prevented by neutralizing any excess of acid employed by strong solutions of soda (5j : ʒj). After the operation the patient must be directed to spit out the secretion (generally yellow coloured), to gargle with a solution of bicarbonate of soda (5j : ʒijj); neither to eat, nor to drink, for two to three hours after the operation; an ice pack should be applied to the neck, silence should be enjoined, and the only food permitted should be cold milk. After cauterisation of larynx, there is generally a little reaction (sometimes strong cough and pain), dysphagia diminishes, as well as the swelling of the neighbouring tissues. A scurf forms, which after four or five days falls off. Chromic acid, according to Heryng, is, *par excellence*, suitable for ulcerations running a chronic course, with tendency to the formation of granulations, and along with which there is a good general condition likewise of the lungs. The author saw much better results from the application of chromic acid in laryngeal tuberculosis in private than hospital practice. The results of the author were confirmed by Bayer, of Brussels, and by Schiffers,¹¹⁴ who warmly recommends this application. This author applies chromic acid in the form of brushings (1 : 6 or 1 : 10). Rethi¹²⁰ is of opinion that chromic acid acts energetically, produces neither the pain nor the strong reaction of nitrate of silver or the galvano-cautery. We can apply it successfully in tubercular swellings of the larynx. Przedborski¹ cites one case where chromic acid proved to be very useful, and he considers this application suitable to hard infiltrations, where lactic acid does not act. To the adherents of chromic acid belongs also Isambert.⁵ Gouguenheim, on the contrary, is very much opposed to this drug. He is of opinion that the action of chromic acid quickly spreads to sound tissues. We must not overlook the interesting observations of John Mackenzie,¹²¹ of Baltimore, who, in persons working in chromic acid, constantly found perforation of the nasal septum, ulcerations of the turbinated bones and of the post-nasal cavity, sometimes also in the lower part of the throat. He did not detect anything in the larynx, but there was sometimes otorrhœa. Although we have not applied chromic acid to laryngeal phthisis, yet, basing our opinion upon experience in the application of this drug to the nose, throat, and larynx (polypous growths), we may express our opinion of chromic acid as

follows: there is no doubt that chromic acid is an excellent drug, energetically destroying pathological tissues, and in this respect it has an absolute superiority over other caustic remedies (e.g., nitrate of silver); on the other hand the application of chromic acid must always meet with some objection to extensive use on account of its great toxic properties. When toxic symptoms arise no precautions are usually effectual, the best are abundant drinking of a solution of bicarbonate of soda before and after operation, brushings with strong solutions of soda, etc. In the greater number of cases more or less distinct symptoms of intoxication appear: such as violent burning in the face, obstinate vomiting, lasting several days (as has frequently occurred in our cases), sometimes very severe pain in the stomach, etc. No wonder then that this drug does not find many supporters, the more so, that in the galvano-cautery we have also an excellent and energetic application, which does not seem to produce any disagreeable symptoms. Therefore, we most decidedly give a preference to the galvano-cautery (although we do not deny the positive action of chromic acid) in cases of operations upon hypertrophic nasal conditions, and in operations upon the larynx, especially in laryngeal phthisis. Of this latter method we shall now speak more fully.

Galvano-cautery.—It is strange that the galvano-cautery is not more frequently applied in laryngeal tuberculosis. It is, however, an excellent application, having a favourable influence upon the absorption of tubercular infiltrations, and can also produce cicatrization of tubercular ulcers. Surgeons seem to fear inflammatory symptoms, such as acute œdema of the glottis, which Moure¹²² appears to have often seen, but neither we, nor Gouguenheim,¹²² have met with it. This fear is the principal obstacle to extension of the use of the galvano-cautery, and therefore the number of surgeons who practise this method is still relatively small. To these belong Voltolini,¹²³ Cahn,¹²⁴ Srebrny,¹²⁵ Schaeffer, and Lublinski.¹²⁵ Schmiegelow¹²⁵ rather cautiously expresses himself in regard to this method. Schrötter does not believe in the galvano-cautery, and is of opinion that in certain cases it may cause injury by irritation, although in two cases of tubercular growths, situated on the posterior region of the larynx, the galvano-cautery gave him good results. Gouguenheim used to apply the galvano-cautery very often in swollen epiglottides and ary-epiglottic folds, and in cases of polypous growths situated on the posterior region; but latterly this author limits the application of the galvano-cautery only to the latter changes, which we meet with in laryngeal phthisis (growths). Of the sixteen observations of laryngeal tuberculosis reported by me further on, in six of them we applied the galvano-cautery with more or less success. The most frequent place of application was the posterior region of the larynx (ulceration, polypous growths), rarely the epiglottis (infiltrations, ulcers), and lastly, the ventricular bands. Basing our views upon the above experiments, we can say that amongst applications for laryngeal phthisis the galvano-cautery must occupy one of the principal places, and seems to have a future before it.

We pass to the consideration of one of the most important advances of recent times in the therapeutics of laryngeal tuberculosis, thanks to which we especially owe the radical change which has taken place in our opinions

as to the curability of laryngeal phthisis. This is the so-called surgical method. Under this name we understand three operations: (1) endo-laryngeal incisions (scarifications), *i.e.*, the method of M. Schmidt; (2) curettement (endo-laryngeal scraping), *i.e.*, the method of Heryng; lastly (3), tracheotomy, *i.e.*, opening of the windpipe. Of these methods we shall now speak more fully, at the same time showing the results of sixteen suitable observations derived from our hospital practice.

C. *The surgical treatment of laryngeal tuberculosis.*—1. Endo-laryngeal incisions, or scarifications. Although before M. Schmidt, Marcet, in the year 1869, employed endo-laryngeal incisions in laryngeal phthisis, yet to Moritz Schmidt, of Frankfurt, belongs the honour of the introduction of this method into the treatment of laryngeal tuberculosis. This author, in the year 1877, in a total of ninety-eight cases, obtained recovery in three by the use of this method, and amendment in ten other cases.

In the next year, of 106 cases, there were seven recoveries, and ten cases exhibited amendment: finally, in the year 1879, of 115 cases, entire recovery occurred in six, and amendment in thirteen cases. Thus, during three years (1877-1879), out of a total number of 300 odd cases, this author, applying surgical treatment (deep incisions), obtained recovery in sixteen cases—*i.e.*, five per cent., and in thirty-three cases amendment—*i.e.*, ten per cent.

These favourable results encouraged other specialists to adopt Schmidt's method. Sokolowski¹²⁶ was one of the first to (in 1881) publish the results obtained in the treatment of laryngeal phthisis by the surgical method. This author applied incisions to the epiglottis and posterior region, and from his own experiments he was of opinion that this method was excellent in laryngeal phthisis. For this treatment the author considered those forms of laryngeal tuberculosis as most suitable, in which, besides relatively small change in the lungs, and the absence of fever, the changes in the posterior region of the larynx were of œdematous character, in which the epiglottis was thickened and swollen, and there was great dysphagia, which diminished very much, or disappeared entirely, after making incisions. The later periods of pneumo-laryngo-phthisis were not suitably treated by this method. Rossbach, of Würzburg, is a great supporter of incisions (although only on the posterior region of the larynx). The method of Schmidt was further applied by Krause, Schaeffer, Schech, and, lastly, Jurasz,⁴ who applies incisions in the first period of tubercular infiltration. Opponents to the practice of surgical treatment of laryngeal phthisis are Lennox Browne,¹²⁷ and Stoker,¹²⁸ who is of opinion that incisions give an impulse to the penetration of the tubercle bacilli. According to Stoerk, a well-known therapeutic nihilist, every energetic treatment of tubercular ulcers of the larynx is decidedly noxious. In the clinic of Sokolowski, we have often applied deep incisions (see cases reported hereafter), mostly to the swellings of the posterior regions, especially in cases of perichondritis arytenoidea, and also in infiltrations of the epiglottis. The result of such incisions was always more or less favourable; the swellings diminished, and painful swallowing often entirely disappeared. We also applied with great success deep incisions into the swollen parts (plastic, hard infiltrations), with subsequent rubbing

of concentrated lactic acid (100 per cent.—*i.e.*, pure acid), which did not act very energetically alone in these cases. Schmidt justly considers as the only drawback to the making of these incisions, too rapid agglutination of the edges of the sore, which takes place especially in superficial incisions. For this reason this author advises very correctly (of which we have had occasion to convince ourselves more than once) that deep incisions or piercings be made, *e.g.*, in swollen arytenoid cartilages. He sometimes made complete excision of the epiglottis. We must admit that this operation is nowadays easily performed and painless. We need only anaesthetise beforehand by means of cocaine (10-15 per cent. for the throat, and 20-25 per cent. for the larynx). These incisions are made by means of ordinary laryngeal knives differently modified.

II. *Curettement*.—Heryng is one of the most ardent supporters of the surgical treatment of laryngeal tuberculosis (129 and 2). This author, besides incisions, successfully employs a new method introduced by himself, the so-called curettement (*curettement*), *i.e.*, scraping of the larynx. This method has been extensively employed in surgery for a long time, surgeons employing the so-called Volkmann's spoon for this purpose. It was applied for the first time to the larynx by Heryng, who employs instruments designed by himself (*see his work*).

The author starts from the assumption that scraping renders the ulcer benign, and considers his method to be indicated (1) in primary laryngeal tuberculosis, which he considers to undoubtedly occur, although rarely; (2) in cases of tubercular growths of the posterior part of the larynx; (3) in cases of ulcers with sclerotic ground and hypertrophic edges. The places where the author applied scraping, were the following:—the posterior region of the larynx, the false cords (infiltrations in the form of growths, ulcers), the vocal cords in cases of exuberant granulations on superior surface, and the epiglottis, on which, on account of its yieldingness, scraping is most difficultly performed. The author considers the principal merits of his method to be the complete destruction of the tubercular process, even when situated deep in the tissues (with which, however, Schrötter does not accord); further the small inflammatory reaction after the operation, and a speedy diminution of pain and difficulty of swallowing due to cicatrisation, which the author obtained in fifteen out of twenty cases thus treated. With the latter opinion of the author we entirely accord, although we have not applied scrapings so often (in five cases reported after), but always with success (the amendment of swallowing, or entire cessation of dysphagia), in two cases entire cicatrisation of the ulcer on the posterior region, as proved at the necropsy by pathological examination. We think that with regard to the epiglottis, this method has less favourable chances. Rosenberg also obtained good results from this method. On the other hand Stockton, of Chicago,¹²⁷ denies the advantages of curettement, while Heryng's method has not hitherto gained universal acceptance, and, while there are as yet few suitable observations, which can lead one to determine in its favour or the opposite, which may be accounted for by the difficulties of its execution. Still, basing our opinion upon our own experience, we cannot deny the positive importance of Heryng's method, and we share the opinion arrived at by the

greater number of laryngologists present at the meeting in Wiesbaden, during the discussion of Heryng's lecture (Cube, Schmidt, Gottstein), that the method of Krause (lactic acid), and the curettement of Heryng must be considered as a great step in the direction of obtaining recovery of laryngeal tuberculosis.

Before passing to tracheotomy, as applicable to laryngeal phthisis, we shall briefly mention a method which, in one case, Sokolowski successfully employed. It was a case in which, through the formation of abundant granulations on the free edges of vocal cords, narrowing of the rima glottidis occurred to such an extent that alarming stenotic symptoms ensued, and we considered the advisability of tracheotomy. In this case, three extirpations of the largest granulations, by means of Fauvel's forceps, removed the dangerous symptoms of suffocation each time, so that tracheotomy was superfluous.

III. *Tracheotomy*.—Tracheotomy, as a palliative remedy, performed to relieve attacks of suffocation, has been applied for laryngeal phthisis a long time. At the end of the last century, Desault, Fleury in 1844, Obédenave in 1866, Eugène and Jules Boeckel, Krishaber,⁴ and many others had performed this operation: but to Moritz Schmidt,¹³⁰ to whom the surgery of laryngeal tuberculosis owes so much, belongs the credit of advising tracheotomy as a therapeutic operation *par excellence* in laryngeal phthisis. Before him, indeed, in the year 1877, our countryman, Serkowski,¹³¹ had considered tracheotomy a treatment more than palliative in laryngeal tuberculosis. In 1883, Sokolowski¹³² described two cases of laryngeal phthisis successfully treated by means of tracheotomy. Louis Grégoire¹³² regarded tracheotomy in laryngeal phthisis to be a therapeutic method: and of the same opinion are Latouche,¹³³ Pilcher,¹³⁴ and Betz.¹³⁵ Further, as supporters of tracheotomy as a therapeutic method, we must add Gouguenheim, Woakes, and Hunter Mackenzie of Edinburgh,¹³⁶ who considers, as favourable features of this operation, (1) rest to the larynx—removal of irritating agents; (2) the facility of the access to surgical treatment. On the other hand, opponents of this method are Morell Mackenzie (who maintains that, although the larynx receives indeed requisite rest, tracheal irritation may occur); further, Isambert, Lennox Browne, Solis-Cohen, and Beverley Robinson. Schrötter remarks in his latest manual: "That I must still regard laryngotomy as a symptomatic indication." M. Schmidt, of eight cases of laryngeal tuberculosis, in which tracheotomy was performed, saw recovery in five. This author gives the following indications: (1) Stenosis—we must not defer the operation (likewise Schrötter, who advises tracheotomy to be performed as low as possible, *i.e.*, as far as possible from the pathological cause). (2) Extensive affection of the larynx, with a relatively small degree of implication of the lungs, even without symptoms of stenosis. In practice this indication meets with great opposition, and it is indeed well-known how unwillingly patients consent to the operation, even in threatening dyspnoea. (3) In a rapidly progressive process in the larynx, even before dyspnoea arises. Lastly, (4) in difficult, painful swallowing; after operation, the larynx is at rest, the swelling diminishes, and the blood is aerated. This last indication,

in the face of the numerous drugs we now possess to control dysphagia more or less successfully, must be considered untenable. With some of these points Schrötter does not agree. Although we have only in one case (reported further on) performed tracheotomy, and that without success, still, from the experience of others, we must consider tracheotomy in laryngeal tuberculosis not only a palliative method, but having a still greater importance, in that it puts the organism in a much better condition, permits a more successful performance of local treatment (Schmidt), and has a favourable influence upon the general condition and upon the pulmonary affection. But the first and foremost indication for the performance of tracheotomy in laryngeal phthisis will always be stenosis, with symptoms of great dyspnoea, arising from (1) extensive infiltrations, (2) formation of exuberant granulations, especially on the free edges of the vocal cords, *viz.*, stenosis of the rima glottidis; (3) inflammatory processes of the perichondrium (perichondritis arytenoidea), with an immobility of the crico-arytenoid articulation. Tracheotomy performed under these conditions removes the symptoms threatening life, and fulfils vital indications. It can, consequently, be used as a therapeutic method, making possible recovery of the local process in the larynx. In many cases, subsequent dilatation by Schrötter's method may be very useful (Schaeffer).

We have above endeavoured as fully as possible to review the numerous methods of treatment, recommended by different authors at various times, for laryngeal tuberculosis. We have reported previously a table of thirty-four cases of laryngeal phthisis, observed by us in hospital (not ambulatory) practice, in which we used local treatment by lactic acid with very satisfactory results. We now wish to present another series of experiments, comprising sixteen cases, with the former a total of fifty cases, in which we applied not lactic acid alone, but also other methods (galvano-cautery; surgical treatment; iodol). This "combined local treatment" was applied in sixteen cases with the following results (*See Table*.)

Of the total number of sixteen cases, in fifteen we obtained amendment, subjective (less hoarseness, improved or normal swallowing) as well as objective (less infiltration, ulcers healed). Of these cases, in ten we were able to remark a more or less distinct cicatrisation of ulcers, sometimes very extensive (third, fourteenth and fifteenth cases). Almost all these cases were exactly observed for a long period (in the eleventh case one year) in hospital, not ambulatory, practice (except cases 11 and 12; in all cases the treatment was founded upon methodical brushings, with lactic acid (in the eleventh case forty times). In many cases, besides this treatment, especially where lactic acid did not act quite energetically, we took refuge in surgical operations, namely, deep incisions, scrapings (curettement); and in many cases besides we applied iodol alone, or with cocaine (8 : 1) in form of insufflations in the intervals of the brushings with lactic acid. In the majority of cases in which we obtained amendment, namely, in eleven, we had to do with slight, or especially interstitial, changes in the lungs; there were cases with almost satisfactory general condition, sometimes excellent (third, eleventh, and fifteenth cases), running a favourable course, without fever, or with very little increased

No.	Case	Age	Sex	General state.	Lungs.	Palatine bacilli.	Laryngoscopic appearance.	General treatment.	Local treatment.	Subjective symptoms.	Objective symptoms.	Result of treatment.	Duration of observation.
1	S. 27	27	Male	Fair	Commencing destruction of summit	Were found	Dysphagia. Hoarseness. Infiltration of post. part. and false cords.	Cod liver oil, creosote	5 brushings, with lact. acid in solution of right ary-epigl. cart. (insulted) had no effect. (insulted) had no effect. (insulted) had no effect.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
2	M. 11	51	Male	Good	At summit slight changes	Were found	Dysph. Hoarseness. Marginal ulcerations on vocal cords.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
3	R. 34	34	Male	Very well	Very slight changes at summit	Were found	Dysph. Slight hoarseness. Extensive ulcers on left false cord. Swelling of left ary-epigl. cart.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
4	S. 27	27	Male	Bad	Commencing destruction of summit	Were found	Dysph. Extensive ulcers on post. part. Ulners on vocal cords.	"	7 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
5	L. 41	41	Male	Bad	Infiltrations at summit	Were found	Dysph. Infiltration of post. part. ary-epiglottic folds, and vent. bands. Excessive ulceration on post. part. Superficial ulceration on right vocal cord.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
6	J. 41	41	Male	Good	Interstitial changes of summit	Were found	Dysph. Great infiltration of epiglottis with ulcers. Infiltration of post. part.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
7	W. 4	4	Male	Bad	Great changes (destructive)	Were found	Dysph. Infiltr. of post. part. Swelling of right ary-epigl. cart.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
8	R. 34	34	Male	Good	Infiltrations at summit (dysphagia)	Were found	Hoarse. Dysph. Swelling of right ary-epigl. cart.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
9	D. 54	54	Male	Good	Slight changes (dysphagia)	Were found	Dysph. Great infiltr. of epigl. with ulcerat. Infiltr. of post. part.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
10	L. 45	45	Male	Bad	Slight changes at summit	Were found	Dysph. Extensive infiltrations and ulcerations in throat (soft palate, uvula, ar. cart., post. part. of pharynx). Infiltr. of epiglottis.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
11	S. 37	37	Male	Very good	Infiltrations at summit	Were found	Hoarse. Ulcers on vocal cords. Infiltr. of epigl. cart.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
12	K. 29	29	Male	Middle	Slight changes at summit	Were found	Dysph. Infiltr. of epigl. and post. part. (ulcer). Ulcerat. on vocal cords	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
13	S. 5	5	Male	Good	Infiltrations at summit	Were found	Dysph. Inf. of post. part. and ary-epigl. folds. Superf. ulcer on right vocal cord	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
14	F. 33	33	Male	Almost good	Extensive infiltrations at summit	Were found	Dysph. Extensive ulcerations on left false cords. Swelling of left ary-epigl. cart.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
15	J. 43	43	Male	Very good	Slight changes at summit	Were found	Dysph. Extensive ulcers on left ventricular bands. Infiltr. of epigl.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.
16	C. 56	56	Male	Bad	Great changes at summit (destructive)	Were found	Dysph. Ulcer on left processa vocalis. Swelling of left ary-epigl. cart. and ary-epigl. fold.	"	5 brushings with lact. ac. in solution of ar. cart.	Good swallow. Infiltrations much less. A little less.	Infiltrations much less. A little less.	Death: extensive inf. and 5 months. Infiltrations much less. A little less. Was discharged.	4 months.

temperature, although the changes in the larynx were considerable, great infiltration, extensive ulcerations, and the general state was even sometimes bad, and the process in the lungs was extensive. In these cases even (*e.g.*, in third) we attained partial cicatrisation of ulcers. If we now compare the results obtained by application only of lactic acid (of thirty-four cases, in twenty-five amendment, and in ten cases more or less distinct cicatrisation of ulcers) with the result above cited, where, besides lactic acid, we also applied other therapeutic methods, we must admit that from the combined method of treatment, the most favourable results must be expected, and that it is at present the most rational therapeutic method of treatment of laryngeal tuberculosis. Of the above sixteen cases the following deserve particular attention :

No. 3. R., aged thirty-four, merchant : duration of observation, two months ; cough for ten years ; hoarseness and painful swallowing for a year ; previous history, good (neither hæmoptysis nor syphilis), without hereditary predisposition ; general condition, very good (no pyrexia) ; very slight changes in the lungs (at summits expiratio prolongata, vocal sound a little increased). In sputa I found tubercle bacilli. Examination by the laryngoscope gave the following results :—Extensive ulcerations on greatly infiltrated left ventricular band, spreading on to the laryngeal surface of the epiglottis ; left vocal cord is entirely covered (not visible) ; swelling of left arytenoid cartilage ; the swallowing, especially of fluids (a very frequent phenomenon in phthisics), impossible ; moderate hoarseness. The patient was prescribed cod liver oil, creosote, and at first every two, afterwards every three, days, brushings with lactic acid (25, 50, 75 and 100 per cent.) were made, fifteen in number, upon the ulcerated false cord. Lactic acid produced violent burning of long duration, in spite of previous anæsthesia of the larynx by means of cocaine (10-15 per cent.). After the first brushings the swallowing was easier, the ulcers began to clear, and their bases began to cover with sound granulations ; at last they entirely cicatrised. Resisting lactic acid, the swelling of the left arytenoid cartilage disappeared only after its deep incision, with subsequent rubbing in of strong lactic acid (100 per cent.). On the discharge of the patient from the hospital, the general condition was excellent, the changes in the lungs the same (very slight), the swallowing quite good, the hoarseness still existing, although less, and as regards the larynx there was entire cicatrisation of the ulcers on the left ventricular band. Some time after we accidentally heard that this patient had died at home several months afterwards. Whether any relapse of the laryngeal affection took place in this case we do not know.

The above case is important, in that it shows clearly how careful we must be in prognosis in such patients, and *that the cicatrisation of tubercular ulcers of the larynx does not mean recovery from laryngeal tuberculosis*, of which we may be convinced best by the autopsy. See the following case :—

No. 4. S., thirty-seven years old, an official ; duration of observation, two months ; cough for two years ; hoarseness for a year : for several days, painful swallowing, *especially of fluids and saliva* ; fifteen years ago, syphilis ; general condition, bad (high temperature) ; in the lungs,

at both summits, commencing destruction : in the larynx, on posterior part, an excrescence, *i.e.*, the upper edge of a deep ulcer : ulcerations of both vocal cords, especially the left ; hoarseness—swallowing almost impossible. Creosote and antifebrin (in order to diminish pyrexia) were prescribed. Locally, in the larynx, methodic brushings of lactic acid (25, 50, 75 and 100 per cent.), seven in number, were applied. They were very painful, in spite of the use of cocaine (10 to 15 per cent.). The ulcer on the posterior part of the larynx remained without change ; not submitting to the above treatment, the same painful swallowing continued ; then three scrapings (*curettement*) of the base and edges of the ulcer (method of Heryng) were made ; afterwards, the swallowing began to amend very much : the ulcer on the posterior part healed. The patient, in this state, was discharged from the hospital. Not long after, however, he returned again, and died some days after with symptoms of increasing weakness and progression of the pulmonary affection. At the autopsy was found, in the lungs signs of the destructive form of consumption ; in the larynx, near the deep ulcers (in many places penetrating to the cartilage), we found a distinct cicatrix on the posterior part, the presence of which Prosector Przewoski, a well-known pathologist, entirely confirmed.

The above case is important in two ways : (1) It clearly shows that the cicatrization of tubercular ulcers of the larynx is possible under suitable treatment. (2) It proves the importance of Heryng's method (*curettement*).

No. 5. L., aged forty-one, an official : duration of observations, two months ; with hereditary predisposition (the mother died of pulmonary phthisis) : for two years, cough and hoarseness ; for five months, entire aphonia ; difficult swallowing ; general condition, bad (great pyrexia) ; phthisis of lungs of fibroid nature (induration of both summits) ; in the larynx, excrescence (ulcer) of the posterior part ; infiltration of false cords and ary-epiglottic ligaments ; ulcer on the right vocal cord ; brushings with lactic acid, five in number, and insufflations of iodol with cocaine produced neither subjective nor any marked objective amendment. Even gelatinous swelling (edema) of the left arytenoid cartilage ensued, which diminished after deep incision. The ulcer on the posterior part of the larynx resisted the above treatment, and was entirely scraped by Heryng's sharp curette, and was also three times cauterised with the galvano-cautery. From this time the swallowing improved very much, and the excrescence on the posterior part disappeared. Exitus letalis, not long after, ensued, with symptoms of general consumption. The autopsy showed : in the lungs, besides the fibroid process, fresh dissipated tubercular affection in the larynx ; on the left processus vocalis a deep ulcer, penetrating to the cartilage ; extensive infiltrations of almost all parts of larynx ; on the posterior part, extensive and distinct cicatrix, the presence of which was confirmed by Professor Brodowski and Prosector Przewoski, well-known pathologists.

The above case presents, more or less, the same points as the former. Both show, that even in cases of bad general condition, and relatively advanced affection of the lungs, entire cicatrization of the tubercular

ulcers can take place under rational treatment (curettement, galvano-cautery, etc.).

No. 10. F., forty-five years old, a merchant's wife ; duration of observation, three months and a half ; cough for fifteen years ; the first hæmoptysis thirteen years ago ; hoarseness and painful swallowing for four months ; she had not been ill before ; general condition, bad ; in the lungs, very slight changes—at right summit, *expiratio prolongata* ; vocal sounds intensified ; in the sputa, after four examinations, I found tubercle bacilli ; extensive infiltrations and ulcerations on the posterior part of the pharynx, spreading on to both faucial pillars, the uvula and the soft palate ; epiglottis, a little infiltrated. Prescribed : cod liver oil, sol. Fowleri, and, locally, lactic acid (25, 50, 75 and 100 per cent.) was rubbed in. In the intervals, insufflations of iodol with cocaine (8 : 1). After such treatment, lasting one month, the swallowing began to amend ; the appearance of the ulcers in the pharynx was much better ; the infiltrations were less ; the ulcers clearer—they began to cover with good, sound granulations, and at last to cicatrise. Only the tubercularly degenerated uvula showed the greatest resistance to healing ; it was, therefore, removed by uvulotomy, and afterwards the cicatrization made rapid progress. But the general condition deteriorated more and more ; the changes in the lungs became more extensive ; infiltration of the epiglottis became greater ; the swallowing painful ; in the pharynx, however, the large cicatrix remained without change. In this state, the patient left the hospital, and, not long after, she died at home. In this case, lactic acid proved to be really wonderful in its effects, as regards the extent of the tubercular process in the throat.

No. 14. F., aged thirty-three, an official ; duration of observation five weeks ; hereditary predisposition (the father died of pulmonary consumption) ; cough for five years ; hoarseness and painful swallowing (especially of fluids) for a year ; syphilis twenty-two years ago. He suffered acute inflammation of the lungs twice. General condition, good (without fever). Changes in the lungs especially interstitial (extensive infiltrations of summits). In sputa I found tubercle bacilli in great number. In the larynx extensive ulcerations on greatly infiltrated left ventricular band, which entirely covered the corresponding vocal cord. Moderate infiltration of right ventricular band and vocal cords. Swelling of both arytenoid cartilages, especially the left. The patient took creosote, cod liver oil, and to the ulcerated cord lactic acid was applied seven times (25, 50, 75, and 100 per cent.) ; in the intervals insufflations were made of iodol with cocaine. The swallowing became better and better, the left false cord began to cover with sound-looking granulations, and to heal. Resisting swellings of the left arytenoid cartilage disappeared after deep incision. The patient was discharged, and we subsequently found on examination : general health good, changes in the lungs *in statu quo*, the swallowing quite good, voice moderately hoarse, in the larynx the ulceration of the left false cord quite healed, and the infiltrations almost entirely disappeared.

No. 15. This case is very similar to the former. F., forty-eight years old, a tailor ; duration of observation, four months ; diathesis (the

father died of pulmonary phthisis); cough for three years; hoarseness and painful swallowing for five weeks, especially of fluids: typhoid fever in youth; syphilis was absent; general state, very satisfactory, without fever. In the lungs, very slight changes at right summit: posteriorly expiration prolonged; vocal sounds a little increased. In the sputa I found tubercle bacilli in great number. In the larynx, infiltration of left half of epiglottis. Extensive ulcerations on left false cords (as in cases 3 and 14); swelling of the left arytenoid cartilage. Creosote and cod liver oil were ordered; locally in larynx, lactic acid was rubbed into the ulcerated cord sixteen times (25-100 per cent.), after previous application of cocaine. In spite of this latter, the burning was violent and of long duration (after every brushing abundant hæmoptysis ensued); in the intervals of brushings, insufflations were made of iodol with cocaine, producing also slight hæmoptysis. Already, after the first brushings, the appearance of the ulcerations was much better, afterwards the ground of the ulcers began to cover with sound granulations, and cicatrisation slowly began. At the same time the swallowing began to improve, and the voice was clearer. To the infiltrated epiglottis the galvano-cautery was applied with favourable result; the patient was discharged from the hospital presenting an excellent general condition. In the lungs were the same slight changes: the swallowing was quite good, and the voice a little hoarse. In the larynx, the ulcers on the left false cords were entirely healed; the infiltration of the epiglottis was much less. The further fate of the patient is not known to us.

The two further cases we separately report on account of their importance. No. 2. M., aged forty-one, a shoemaker; duration of observation four months; cough for ten years; hoarseness and painful swallowing for a year; abusus in baccho; without hereditary predisposition; no syphilis; general state, good (without fever); symptoms of emphysema at pulmonary summits; very slight changes (exp. prol. voice increased); in sputa I was able to detect tubercle bacilli in small number. The swallowing, especially of fluids, was impossible; attacks of tormenting cough. In the larynx, on the edges of vocal cords, ulcerations (marginal). Cod liver oil, creosote. Eighteen brushings with lactic acid (25-100 per cent.), finally made without cocaine, because after cocaine, as well as after lactic acid, the patient suffered exceedingly violent attacks of coughing and dyspnoea. In the intervals of brushings, insufflation of iodol with cocaine were made. The swallowing improved, at last became quite well; ulcers healed, so that the vocal cords presented a sort of cicatric degeneration in great degree; unevenness (a sort of granulation) on the free edges of the vocal cords, projecting into the rima glottidis, narrowed it very much, producing more and more alarming attacks of dyspnoea. We were almost resolved to perform tracheotomy, but before doing so Sokolowski tried to extirpate by endo-laryngeal means, with Fauvel's forceps, the most prominent granulations, occupying three sittings. Symptoms of stenosis partially disappeared, and tracheotomy was not performed. The patient was discharged with good general health, and with slight dyspnoea, swallowing quite well, and with cicatric degeneration of the vocal cords.

No. 11. S., aged thirty-six, a porter ; duration of observation, one year ; diathesis (the father died of pulmonary phthisis) ; cough for three years ; hoarseness and painful swallowing for one and a half years. He was then locally treated ; hoarseness and pain then disappeared ; for half a year deterioration ; no syphilis ; changes in the lungs more of fibroid nature (extensive indurations at summits). At second examination I found tubercle bacilli in the sputa ; general state, excellent. The patient is still employed as a porter, and is treated in our ambulatory. In the larynx : ulcers on vocal cords ; moderate hoarseness ; swallowing well. After forty brushings of lactic acid (25-100 per cent.), cicatrization of ulcers. Stenosis of rima glottidis to a certain degree resulted, being due to the formation of a sort of arch in the vocal cords, the bow of which is situated at the anterior angle of the vocal cords. This patient, however, in opposition to the former case, in spite of comparatively great stenosis, did not suffer from dyspnoea. After half a year we saw the patient again ; the vocal cords cicatricially degenerated : the same stenosis as formerly. The epiglottis, on the contrary, was infiltrated ; on its right half there was an extensive ulcer, with dirty base and uneven, elevated edges. The ulcer was cauterised with the galvano-cautery, and, after removing the scurf, sound granulations formed, and after a week the ulcer began to cicatrise, the infiltration of the epiglottis diminished considerably. The swallowing was always good, and moderate hoarseness existed. Some months after, we saw the patient again, and the state of the vocal cords remained without change ; the epiglottis presented fresh infiltration, and in the lungs there were greater changes. The patient is now under observation.

The two last cases claim our particular attention. In both we had to do with a certain degree of stenosis of the glottis, in the first case, in consequence of too abundant formation of granulations on the vocal cords, cicatricially degenerated ; in the second case, on account of a cicatrix producing a malformation. Stenoses of the larynx of tubercular nature belong to the exceedingly rare phenomena. Many authors, even up to the present time, do not accept them. To such belong Morell Mackenzie, Stoerk, Hueter, Lünning, and Heryng, who collected one hundred cases of various stenoses of the larynx. Syphilitic stenoses are the most frequent, and moderately frequently occur stenosis during abdominal typhus. Stenosis may occur, although rarely, in other diseases, as in diphtheria, small pox, &c. Not only partial stenosis of the larynx, such as occurred in our cases, but complete formation of membranes between the cords of undoubtedly tubercular character has been observed. The first case was described by Lenicke, of Rostock. A teacher, aged fifty-two, had had symptoms of pulmonary phthisis, lasting for a long time. In the larynx, a long-existing tubercular process, produced at last the formation of a complete membrane between the vocal cords, with a small oval aperture in the centre. Endo-laryngeal treatment, by means of dilations of Schrötter, gave no result, and, at last, laryngotomy was performed with excision of the membranes. Recovery afterwards ensued. Rosenberg¹⁵⁷ described a case, observed by B. Fraenkel :—A man, thirty-six years old, had hereditary predisposition, but no syphilis. There was

affection of the right pulmonary summit (induration); tubercle bacilli in sputa; aphonia. On the left false cord infiltration with ulcers. Climatic treatment: inhalation of carbolic acid; cicatrization of ulcers. Formation between the false cords of a complete membrane, with only a small aperture in its posterior part. The above formation of membrane of tubercular nature we have also observed (see fourth case treated by menthol), but they will be the subject of more particular description. I shall only add here that, in such cases, therapeutic treatment consists in incision of the membrane by endo-laryngeal means, with subsequent methodic use of Schrötter's dilators, as was done in our cases, or as in Lenicke's case, laryngotomy, with the subsequent excision of the membrane. In the greater number of such cases we cannot avoid tracheotomy.

If we sum up our thirty-four cases, treated by lactic acid, with sixteen cases, in which the combined method was applied, we get a total of fifty cases in which local treatment was systematically carried out. The general results in these fifty cases are as follows:—

(1) Amendment in forty cases, *i.e.*, eighty per cent.

(2) Without amendment in ten cases, *i.e.*, twenty per cent.

The amendment was (1) only subjective in ten cases:

(2) subjective and objective in thirty cases.

From the latter we must separate ten cases in which we had only more or less amendment, from twenty cases in which we obtained more or less distinct cicatrization of tubercular ulcers. This number, *i.e.*, eighty per cent. of amendment, obtained by local treatment, eloquently proves the advantage of this therapeutic method, and is still more evident, if we compare it with the percentage obtained on analysis of the same number of cases (fifty) in which we applied no treatment at all, except of a general character (cod liver oil, creosote, arsenic). These cases were also observed by us in the clinic of Sokolowski for diseases of the throat and lungs in the Hospital of the Holy Ghost in Warsaw; they belong to the same class of patients, and are under the same conditions as the former. The general results obtained by us in these fifty cases are as follows:—

1.—Amendment in eight cases, *i.e.*, sixteen per cent.

2.—Without amendment in forty-two cases, *i.e.*, eighty-four per cent.

This amendment was especially subjective, *i.e.*, it referred to hoarseness and difficult swallowing, and only in one case, where the changes in the lungs were slight, the ulceration of the posterior parts of the vocal cords was partially cicatrized, although in this case, though for only a short time indeed, insufflations of boric acid were made. In these, as well as in the remaining seven cases in which amendment was obtained without local treatment, there existed relatively slight changes in the lungs, especially of interstitial nature, and the general state was more or less satisfactory. In most of the remaining cases (forty-two), where no amendment was remarked, the tubercular process in the larynx, as well as in the lungs, progressed generally to a fatal termination (in twenty-three cases). At the autopsies we were able to prove the enormous destructions of the larynx without anywhere any trace of cicatrization.

If we now compare the results obtained by us in our two series of observations, we note very remarkable differences, namely:—

Of fifty cases locally treated, amendment in forty, *i.e.*, eighty per cent. Of fifty cases without local treatment, amendment in eight, *i.e.*, sixteen per cent.; and the most pessimistic should be convinced of the importance of local treatment in laryngeal tuberculosis.

In the second series of cases under our observation, the following merits particular attention :—

No. 1. C., aged fifty-one, a confectioner; duration of observation, five weeks; hereditary predisposition: twice he has had acute inflammation of the lungs; no syphilis; cough for several years, and for a month hoarseness and painful swallowing, especially of saliva; no fever; general state, good; in the lungs, changes very slight (on right summit at the back expiration slightly prolonged); in the sputa I did not find tubercle bacilli; moderate hoarseness and dyspnoea; dysphagia. Epiglottis, false cords, ary-epiglottic folds, and posterior parts do not present any distinct changes. The vocal cords swollen; occupying one-third of the right vocal cord, a growth was seen during inspiration, originating from the inferior surface of the right vocal cord: the growth was almost red, and of the size of a hazel-nut, with uneven surface. Sokolowski partially extirpated the growth by means of Fauvel's forceps; the extirpated parts of the growth were kept in alcohol in order to examine them under microscope, which, unluckily, on account of the loss of the preparation, could not be done. We afterwards brushed with weak solutions of nitrate of silver, and after a month, the patient was discharged from the hospital, with the general state, good, less hoarseness, the right vocal cord reddened and greatly swollen, and a little trace remaining of the growth. Three months afterwards the patient returned with great dysphagia, and great infiltration of the false cords, which quite covered the vocal cords. Fever: slight pulmonary changes in sputa however. I was this time able to find great quantities of tubercle bacilli. Unluckily, the patient was soon discharged from the hospital, and his further fate is not known to us.

Although the above observation leaves very much to be wished in regard to its exactness, and although what was most important, *viz.*, microscopical examination of the growth was not made (for the above reasons), and consequently we cannot say anything absolutely definite as to its character, yet from its microscopic appearance, and from the affection of the lungs, which, though slight, was undoubtedly tubercular (tubercle bacilli), and especially from the course of this case (infiltration of false cords—dysphagia), and its analogy to others which I have found recorded, we are inclined to regard this case as a probable tubercular growth of the larynx, perhaps primary.

These growths are not exceptional. (1) John Mackenzie, of Baltimore,¹³⁷ was the first, who drew attention to them in the year 1882. He proved the tubercular nature of the growth by means of microscopic examination (in two cases—in one of them the growth was situated in the larynx, in another in the trachea).

(2) In the year 1884 Percy Kidd¹³⁸ described the following case: The patient, aged fifty, had for eight months a cough, hoarseness, and dyspnoea. Induration of left summit was found. On the posterior part of the left vocal cord a round growth the size of a little pea was

found, and on the analogous part of the right cord a slight red excrescence, which increased slowly to the same size (pea), and presented the same aspect as the left side. For several months the state of the lungs and larynx was without change. Not long after the symptoms occurred of a cavity at the left summit of lungs, with swelling of the ary-epiglottic folds. The growth remained without change (nine months). Exitus letalis—fibroid form of pulmonary phthisis—tubercular ulcers on the posterior part of larynx and trachea, on both processus vocales growths the size of a pea. Microscopic examination of the growths proved their tubercular nature (tubercle bacilli).

(3) Lermoyez¹³⁹ described a case of movable polypous growth (vegetation), situated at the anterior angle of the right vocal cord, causing symptoms of suffocation. Tracheotomy. Death. At the autopsy tuberculosis of the lungs was proved. In the above case the nature of growth was not (as in our case) proved by the microscope.

4. Schnitzler¹⁴ reports the following case: A man, twenty-one years old, with extensive tubercular process in the lungs. In the larynx numerous growths, varying from the size of a pea to a hazel-nut. Tracheotomy. The growths were extirpated by means of the guillotine. Microscopic examination proved their tubercular nature. Besides the above case, the author described two cases of tubercular growths of the larynx, in one of which the growth was situated on the posterior part of the trachea; in another it originated in the ventriculus Morgagni.

5. Ariza, of Madrid,¹⁴¹ pretended that to himself belongs the priority of drawing attention to tubercular growths of the larynx, since he had in the year 1877 already described such a case. The growth was of the size of a small nut, red, originating from the epiglottis. Partial extirpation. The microscope proved the tubercular nature of the growth, and below the above growth numerous polypous growths likewise of tubercular character, microscopically. This author, besides the above case, observed one case of tubercular growths the size of an almond at the anterior angle of the vocal cords. The author is of opinion that tubercular growths in the larynx are relatively frequent—their favourite place is the epiglottis, between the arytenoid cartilages, or the vocal cords (especially their anterior angle).

6. In the year 1885, Percy Kidd¹⁴² described three new cases of tubercular growths of the larynx (two with post-mortem examination). Kidd is of opinion that the extirpation of these growths is indicated, when the growth is too large, or so situated that it produces the symptoms of dyspnoea.

7. In the year 1887, Schaeffer and Nasse¹⁴³ described the following case: A manager, thirty-three, presented at the extremity of the left vocal cord a growth the size of a bean, with a slightly uneven surface. The patient died of pulmonary phthisis. The microscopic examination of the growth showed tubercles with giant cells and tubercle bacilli.

8. In the same year Percy Kidd¹⁴⁴ described still another case (together five) of tubercular growths in the sub-glottic region below the right vocal cord. The growth was grey-red, and of the size of a bean.

9. Heryng² in two patients observed on the false cords in the

neighbourhood of the processus vocales small hemispherical growths. One of them extirpated by forceps was microscopically examined, and showed tubercles with giant cells.

10. Foa, cited by Gouguenheim, described one case of small growth (cauliflower-like), situated on the epiglottis and vocal cord. The microscope proved the tubercular nature of the growth (tubercle bacilli).

11. Gouguenheim⁵ had occasion to observe three cases of tubercular growths in the larynx, one of them occurring in a young man, on whom tracheotomy was performed on account of dyspnoea, in the sinus anterior cavi laryngei. At the level of the base of the epiglottis there was seen a pale-red, cauliflower-like mass. Lungs intact. Parts of growth examined by the microscope showed tubercle bacilli. In the second case the growths were situated under the rima glottidis; in the third, on the cords.

12. Although John Mackenzie was justly the first, who by histological and bacteriological examination showed the tubercular nature of these growths, they had previously been mentioned by Mandl in his manual of diseases of the throat and larynx (1872), and he gave them the name of "vegetations primordiales," which, in the form of growths of different size and of pale colour, are especially situated on the anterior surface of the posterior region of the larynx. This author describes a case. A healthy man, with hoarseness, presented in the larynx numerous polypous growths on the posterior part, and one on the left vocal cord at its anterior part; nowhere were ulcers visible. In the lungs no changes—no syphilis (specific treatment without effect). After a year ulcers occurred in the larynx (on the place of former growths), and in the lungs were distinct tubercular changes. This kind of growth Mandl¹³⁵ only describes in connection with primary tuberculosis of the larynx. We must distinguish them from the growth (excrecentio) on the posterior regions, appearing sometimes in the course of pulmonary phthisis, and which is generally the prominent edge of an invisible deep ulcer, as we can best convince ourselves at the necropsy.

13. Before Mandl, Tobold, in the year 1866, mentioned similar cauliflower-like growths.

14. A very interesting case of primary tubercular growth in the larynx was described by Dehio, of Dorpat,²⁰ in 1888: An otherwise healthy man, aged forty-one, complaining of hoarseness and slightly painful swallowing, was found on laryngoscopic examination to have a growth, originating from the left false cord; growth large, uneven, and grey; lungs intact. Laryngo-fissure. Excision of the whole left false cord, together with a growth. Examination of the growth proved its tubercular nature (tubercles with giant cells and tubercle bacilli). Afterwards the symptoms of pulmonary phthisis became more and more distinct, ending in death.

Besides the above case, we have had occasion to observe a case, which in other respects deserves closer attention, *i.e.*, presenting the combination of tuberculosis with syphilis of the larynx, to which latterly attention has often been drawn.

B., aged thirty-seven, a printer. Duration of observation, about one

year; he descends from a healthy family; cough for several years; hoarseness for a year; painful swallowing for two months; five years ago, syphilis; general condition, good. The patient was treated in our ambulatory. In the lungs, the changes were especially of interstitial nature (at right summit posteriorly—expiratio indeterminata, bronchophonia). In the larynx, on the left false cord, an ulcer about one centimètre in diameter. Great infiltration of both arytenoid cartilages, especially the right. Other parts of larynx without change. In the sputa I found, though not at the first examination, enormous quantities of tubercle bacilli. Anti-syphilitic treatment was prescribed (kali iodatum); after five weeks the hoarseness considerably diminished, painful swallowing entirely disappeared, and the ulcer on the left ventricular band had quite healed. Infiltration, however, of the arytenoid cartilages remained without change. In the lungs the same changes. Examination of sputa for tubercle bacilli gave a negative result this time. General state, very good. The patient feeling well did not frequent our ambulatory. After nine months he appeared, saying, that two weeks before he had had hæmoptysis, that for two months the hoarseness increased, accompanied by gradual painful swallowing.

On examination we found a bad general condition; in the lungs, at the right summit, symptoms of destruction (ronchi consonantes, respiratio bronchialis); in the sputa I found distinct (in bundles) elastic fibres and great quantities of tubercle bacilli. On examination by the laryngoscope we found ulcerations on the posterior part of the vocal cords, and swelling, especially of the right arytenoid cartilage. Several times brushings with chloral were made (5-10 per cent.), with relative subjective, as well as objective, amendment (ulcers a little clearer), but the general state made further ambulatory treatment impossible. The patient did not wish to enter the hospital, and not long after died at home.

In the above case, we had probably to do with a combined process in the larynx—tuberculosis and syphilis. In support of this supposition, we may indicate: (1) Syphilis in anamnesi, as well as the healing of a large ulcer under specific treatment (the so-called method: "Ex juvantibus et nocentibus"); (2) undoubted pulmonary tuberculosis (tubercle bacilli in sputa), likewise the affection of the arytenoid cartilages, resisting the specific treatment; (3) lastly, the course of the disease.

To the cases of a combination of syphilis and tuberculosis of larynx, much attention has latterly been drawn, and many observations have been made.

1. Schnitzler,¹⁴⁵ of Vienna, considers these forms even relatively frequent. He is of opinion that syphilitic ulcers can in consequence pass into tubercular, forming very suitable ground for Koch's bacilli. With this latter B. Fraenkel¹⁴⁷ agrees. Schnitzler remarked that patients with hereditary predisposition were more readily inclined to syphilis. This author reports a case where a syphilitic ulcer was formed on the epiglottis, which under specific treatment cicatrised, little by little; however, there began to form in the whole larynx typical tubercular ulcers, and death occurred after one and a half years. At the autopsy, pulmonary phthisis, and tuberculosis of the throat and larynx were found.

In the above case, in a patient with syphilis of the larynx, further tubercular infection took place. But both these diseases may co-exist in the larynx, as in our case. Such a possibility had already been indicated by Rokitsansky.

2. In the same year (1886), Cardone, of Naples,¹⁴³ described the following case:—A woman, aged twenty-six; anamnesi, syphilis. The condition of the larynx was undoubtedly syphilitic (swelling of the epiglottis with great loss of substance, gumma in the pharynx). Hectic, slight changes at the right summit (*respiratio aspero*). The secretion from the laryngeal ulcer contained tubercle bacilli.

3. A similar case is cited by Massei¹⁴⁹: Ulcer on epiglottis, affection of both summits, gumma in the pharynx, and the secretion of the laryngeal ulcer contained tubercle bacilli.

4. Grünwald¹⁵⁰ and Schnitzler also consider the combination of syphilis and tuberculosis of the larynx a relatively frequent phenomenon. The diagnosis of these cases is difficult. If, he says, there at the same time exist distinct radiating cicatrices and destruction of the epiglottis, besides polypous growths on the posterior part of the larynx, there is no doubt that we have to do with syphilis and tuberculosis of the larynx combined.

5. A very interesting case is reported by Arnold.¹⁵¹ The patient had extensive pulmonary affection, aphonia; ulceration of the epiglottis; swelling of the arytenoid cartilages; ulcer in the inter-arytenoid region; and ulcerations on the vocal cords; tuberculosis of the larynx and lungs was recognized. Palliative treatment was adopted. Some time after the patient confessed that three years before he had contracted syphilis. Anti-syphilitic treatment was applied; after five days, the ulcers on the cords and epiglottis began to heal, and after three weeks they were entirely cicatrised; on the other hand, the swelling of the arytenoid cartilages, and the ulcer of the posterior part remained without change, showing clearly their tubercular nature in regard to the pulmonary affection.

6. Rienzi¹⁵² observed one case of the combined disease (syphilis with primary laryngeal tuberculosis).

7. Heryng² reports a case in which he also supposed this form of disease to exist—undoubted pulmonary tuberculosis (tubercle bacilli) along with syphilis. In the larynx were ulcers on the vocal cords, hard infiltration of the posterior part, swelling of the ary-epiglottic folds, and over the capitula Santorini. Near the epiglottis these folds were tense (in opposition to what is seen in tubercular processes of the larynx). The appearance of the posterior region gave a supposition as to the combined disease. The general state was good; under iodide the appearance in the larynx improved. By means of the sharp scrubber the hypertrophic edges of the ulcer were scraped. Under the microscope tubercle bacilli were not found, but giant cells existed in great quantities.

8. I believe, that in the case recorded by Rosenberg,¹⁵³ we can with a certain probability suppose the combination of syphilis with tuberculosis of larynx. A girl, fifteen years old, had suffered for one and a half years from hoarseness, and latterly from painful swallowing. Neither hereditary.

nor acquired syphilis seemed to be present. At the left pulmonary summit very slight changes existed; in the sputa Koch's bacilli were found. In the larynx extensive ulcers existed on the epiglottis and false cords with swelling over the right arytenoid cartilage. The secretion of the ulcers, several times examined, did not contain tubercle bacilli. Under iodide of potash, cicatrization of the laryngeal ulcers began, but further treatment remained without effect.

9. Lately Oltuszewski¹⁵² described the following case: the patient was aged twenty-four. Hereditary predisposition existed: four years ago, syphilis. For a year there had been cough, hoarseness, and dysphagia. In the lungs, indurations existed at the summits. An ulcer was found in the throat. On the posterior part of the larynx there was unevenness. Under specific treatment the ulcers healed, but the changes on the posterior part remained *in statu quo*.

10. The case of Arnold Poci, cited by Oltuszewski. With a phthisical ulcer on the epiglottis, there was swelling of the posterior part, likewise superficial ulcers of the vocal cords. A history of syphilis was obtained under specific treatment. The ulcers healed, but the changes on the posterior part remained *in statu quo*.

According to Gouguenheim,⁵ we meet very rarely with syphilis and tuberculosis of the larynx, with which statement we (Schnitzler also) cannot agree. On the contrary, we are of opinion that this combination occurs relatively often, but hitherto too little attention has been drawn to it. In all cases where there is a history of syphilis, where specific treatment has only a partial favourable influence on the changes of the larynx, where certain portions of the ulcers heal and others resist, we find on direct examination of the secretion tubercle bacilli present, and at the same time of affection or not (primary laryngeal tuberculosis) of the lungs, we are justified in supposing the combination of the diseases in the larynx, viz.: syphilis and tuberculosis. Gouguenheim counsels us to suspect these forms in all cases, where, having in addition to undoubted laryngeal tuberculosis, a rapid destruction of the epiglottis takes place. This author considers the inclination to growths as pathognomic for tuberculosis, while syphilis of the larynx is characterised by the inclination to ulceration. But these symptoms by no means can be regarded as sufficient evidence of the co-existence of the two diseases. We have a surer criterion for the diagnosis of laryngeal tuberculosis, namely, the method (applied first by B. Fraenkel) of direct examination of the secretion from the laryngeal ulcer, of which we have already fully spoken.

Summing up our own observations and those of others, we arrive at the following conclusions:—

1. Primary laryngeal tuberculosis exists undoubtedly.
2. This disease, however, is exceedingly rare.
3. The curability of so-called laryngeal phthisis is undoubtedly possible.
4. Recovery from laryngeal tuberculosis is rare, but it can take place in certain cases under local treatment, or even without it (*sanatio spontanea*).
5. Partial recovery from laryngeal phthisis, viz., the cicatrization of

single ulcers, must be considered not only as possible, but even apparently often obtained.

6. This partial recovery occurs under the influence of local treatment.

7. The recovery of laryngeal tuberculosis and cicatrisation of single tubercular ulcers takes place especially in those cases where the general state is good, and the changes in lungs are of interstitial nature, showing the tendency of the organism to the formation of connective tissue.

8. Local treatment is the only rational method of treatment of laryngeal tuberculosis.

9. Cocaine is an inappreciably useful drug in laryngeal phthisis.

10. Of the numerous drugs, locally applied for laryngeal tuberculosis, lactic acid is the most important.

11. From the combined method (lactic acid, galvano-cautery, surgical treatment) we can expect the best results in treating laryngeal tuberculosis.

12. As in syphilis, typhus, etc., stenosis may result from tubercular disease.

13. Tubercular growths of the larynx are not rare, and they may be symptoms of primary laryngeal tuberculosis.

14. We have often to do with a combination of syphilis and tuberculosis of the larynx.

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ASSOCIATION MEETINGS.

American Laryngological Association.

Eleventh Annual Congress, held in Washington, D. C., May 30, 31, and June 1, 1889.

FIRST DAY, THURSDAY, MAY 30TH—MORNING SESSION.

THE Association was called to order by the President, DR. ETHELBERT CARROLL MORGAN, of Washington, who delivered the Presidential address, expressing the profound pleasure which he experienced in welcoming the Association to the national capital, the home of scientific libraries, laboratories, and museums fostered and encouraged by a liberal government. The Association had wisely followed in the wake of numerous other scientific bodies, which made pilgrimages to Washington, and exerted a healthy influence toward popularizing their special fields of scientific investigation. The noble work of this Association during its eleven years of existence has resulted in placing laryngology upon a substantial basis, and in demonstrating its truths and benefits alike to the profession and to suffering humanity. The outlook for laryngology was never brighter than at present.

The tenth volume of the "Transactions" is now in the press, and in addition to the papers read at the last meeting of the Association, contains a table of contents of all the papers read to the Association since its organization.

The library now contains nearly nine hundred separate titles. The librarian thinks that the collection would be more accessible if in charge of the Surgeon-General's Office, and recommends its donation to that library.

The Association has lost no members by death since the last meeting.

After some suggestion in regard to the social features of the annual meetings, the President closed by reiterating the assurance of his heartfelt appreciation of the goodwill and friendship which influenced the Association in selecting him as the President of this distinguished body.

THE PRESIDENT then read the report of a case of *Removal of Supernumerary Tonsil*, with specimen and drawings.

The patient, a male, aged twenty-six years, vigorous and otherwise healthy, came under observation September 7, 1886, with what he feared was malignant disease of the pharynx. The growth was first discovered four years previous. It had occasioned considerable pain, especially after smoking. During the past two months the growth had rapidly increased in size, and the pain had become of a shooting character, extending to the ears, larynx, and top of the head. Examination revealed a pendant tumour between the right palatine folds near the uvula and protruding beyond their borders half an inch. The tumour was as large as a small almond. Its colour, as well as that of the pillars, was a dusky red. Slight engorgement of the cervical glands appeared to exist. The patient's mother had died of cancer of the breast, and he felt convinced that the growth was malignant. Local and general treatment having no effect, the tumour was excised and the raw surface cauterized with the galvano-cautery. In ten days the wound had healed. The patient was recently examined and there has been no recurrence, now four years after the operation. The specimen removed

was examined by Dr. W. M. Gray, microscopist to the Army Medical Museum, who stated that its structure was identical with that of a faucial tonsil which had undergone hypertrophy. The location and microscopic characters of this tumour, as well as the history of the patient prior to and subsequent to operation, proves that this was a hypertrophied accessory or supernumerary tonsil, an exceedingly rare anomaly. A search of the literature had revealed only two other cases of a similar character, reported by Jurasz in 1885. In the first case the tumour was as large as a hen's egg, and was found to spring from the lower anterior portion of the right posterior pillar by a small and short pedicle. It was removed and found on microscopical examination, to present the structure of a hypertrophied tonsil. In the second case the tumour was of the size of a hazel-nut, and attached below the right tubal prominence. The microscope revealed a structure similar to that of the faucial tonsil.

Conclusions.—1. The lymphoid follicles of the soft palate and pharynx are liable to be aggregated, resembling in arrangement the faucial tonsil. 2. The condition is exceedingly rare, since, excepting the so-called "pharyngeal tonsil," the author had found but one case reported. 3. These lymphoid follicles are also liable to hypertrophy. 4. Such hypertrophies probably occur oftener than is generally supposed. 5. The indications for operative interference in this condition are identical with those for the faucial tonsil.

DISCUSSION.

Dr. D. BRYSON DELAVAN, of New York, thought that possibly cases of supernumerary tonsil were not so infrequent as was commonly supposed. Pedunculated tumours of the tonsil, which on examination show a fibroid structure, are not rare, and it may be that these are degenerated supernumerary tonsils; just as the tonsil may, from long continued inflammation, become the seat of fibroid change.

Dr. GEORGE W. MAJOR, of Montreal, Canada, read a paper entitled *The Relation between Facial Erysipelas and Erythema on the one hand, and Intra-nasal Pressure on the other.*

The following cases were cited as showing that facial erysipelas may be produced by nasal conditions, particularly when they are productive of pressure.

Case 1.—A girl, aged twelve, came under observation in March, 1884, for the treatment of nasal catarrh. There was a general hypertrophic condition, with pressure of the middle turbinated body of one side against the septum. On the cheek bone of the same side there was a red patch of erythema, which had existed for five months. Treatment of the nasal condition by scarification, puncture, and galvano-cautery was followed by disappearance of the erythematous rash, and it did not return.

Case 2.—A child, four years of age, was seen in February, 1885, suffering with facial erysipelas, commencing on the bridge of the nose and extending to the cheeks. It had already lasted five days, and was not disposed to yield to treatment. Both nostrils were occluded by swelling. All treatment directed to the relief of the erysipelas was suspended, and attention directed to the relief of the nasal condition. In twenty-four hours the erysipelas had disappeared.

Case 3.—In the winter of 1884, a boy, aged twelve, the subject of recurring attacks of erysipelas, was seen with an attack involving the nose and cheeks. Nasal injections were alone used, and the erysipelas disappeared in thirty-six hours.

Case 4.—February, 1889, a female, aged fifty-six, presented herself with an erythematous patch on the left cheek. This had lasted four months. There was swelling of the left turbinated bone, which pressed against the septum. Under treatment of the nose the erythema disappeared in the course of a week. Six other cases were alluded to in which the same connection was seen.

DISCUSSION.

Dr. J. O. ROE, of Rochester, N. Y., had seen a number of cases of erythematous rash due to the nasal trouble. A case recently seen was that of a girl, aged twenty-three. There was a very red erythematous patch on the face, associated with blebs. She had been treated by various physicians without benefit. In both nares the middle turbinated bodies pressed firmly against the septum. This was relieved, and there was immediately a subsidence of the erythematous trouble. He, however, could not admit that erysipelas is due *per se* to the intra-nasal trouble. He held that erysipelas was an infectious disease due to a distinct germ. The presence of erosions in the nasal cavity would render the patient more liable to become infected.

Dr. J. N. MACKENZIE, of Baltimore, Md., said that the relation between erythema of the nose and face and intra-nasal trouble had been recognised centuries ago in the times of Willis, and by Sylvius. He himself had seen many cases of this kind, but he had never seen true erysipelas due to this cause.

Dr. WILLIAM H. DALY, of Pittsburg, Pa., was not a believer in the theory of intra-nasal pressure. The evils referred to pressure are really due to intra-nasal turgescence. The condition of erythema is nothing more than a condition of hypernutrition, due to a permanently dilated and enlarged blood-supply. He believed that the term chronic facial erysipelas is a misnomer.

Dr. F. I. KNIGHT, of Boston, Mass., remarked that in these cases of erythema of the nose and face he always looked for neurosis, and very often found it. Where the trouble has been relieved, the affection of the skin has disappeared.

Dr. D. BRYSON DELAVAN, of New York: I have seen several of these cases, and in three or four the erysipelatos attacks have been severe. One, a girl, aged seventeen, had recurrent attacks of severe erysipelatos swelling, starting from the nose and extending over the cheeks. These recurred at intervals of two or three weeks. There was no necrosis, but marked turgescence of the nasal mucous membrane. This was treated topically, and with the subsidence of the catarrhal trouble the attacks of erysipelas disappeared.

Dr. SAMUEL W. LANGMAID, of Boston, Mass., read a paper entitled *A Case of Acute Multiple Adenitis (Septic?), (Edema of the Larynx, with Spontaneous Cure*. The patient, a lady aged forty, had been sick for seven days. When first seen she was found restless, with an anxious expression, breathing with difficulty, and with a dry, croupy cough. There was no lividity of the face, but it was stated that during the preceding twenty-four hours there had been danger of strangulation. The sub-maxillary glands, as well as those in the region of the neck, were much swollen. Temperature 99°; voice fairly loud and clear; no enlargement of the tonsils; nothing unusual in the naso-pharynx. With the laryngoscope, a tumour, apparently as large as a filbert, was seen occupying the posterior arytenoid space. The anterior third of the vocal cords could be seen approximated and scarcely moving during respiration. The throat had not been examined until four days after the commencement of the attack. As the patient was breathing fairly well it was decided to do nothing. If necessary, the tumour in the larynx was to be excised. A few hours later something was felt to break in the throat, and a free mucoid discharge took place. Three hours later nothing could be seen but the erect epiglottis, with muco-purulent matter welling up. There was a continued discharge, but the relief to breathing was not complete. There had been also the discharge of half an ounce of pus. The discharge continued for several days, and the patient gradually recovered.

It was thought that the case was in all probability due to diphtheria, the evidence of which had passed away when the author examined the throat. The

patient stated that at the commencement of the illness the throat had been sore, and that on one side she had noticed red spots, on which there had been a white covering.

Dr. WILLIAM C. GLASGOW, of St. Louis, Mo., followed with a paper on *An Œdematous Form of Disease of the Upper Air-Passages*. The paper described an œdematous form of disease which had been epidemic in the Mississippi Valley for some two years. During the existence of this affection there has been a disturbance of the ordinary catarrhal throat troubles. In all cases of this disease there is found a pale, œdematous condition of the fauces. A peculiar glistening appearance is at times very marked. In the majority of cases the soft palate is the seat of the œdema. At times the nasal mucous membrane is found in the same condition. The epiglottis and different portions of the larynx may be involved. In some cases the true cords are markedly œdematous. A swollen condition of the veins, particularly the palatine veins, is present. This sometimes causes purpura-looking spots, and the mucous membrane appears mottled; in two cases these purpura-looking spots had been seen in the trachea. In one case enlarged veins were seen on the true cord. In some cases ulceration occurs. In some cases, in addition to œdema, there were patches of exudation in different parts of the throat. These, when removed, leave a bleeding surface. The symptoms of the disease and appearance of the throat preclude the diagnosis of diphtheria. In six cases spots of mycosis were seen. Glandular enlargement of the neck is quite frequent. In two cases suppuration occurred.

The symptoms are constitutional and local. The affection occurs suddenly in persons of previous good health. There is languor and weakness, and general pains throughout the body. Headache is present, usually frontal, sometimes occipital. In many cases it is simply a dull, heavy feeling; in others it is an intense, violent, throbbing pain. Pain in the back, in the region of the sacrum, is a characteristic symptom. Fever is present in varying degrees. In the exudative cases the disease commences with chill followed by fever, and the temperature may reach 105° F. This soon passes off, and we have a sub-febrile condition remaining, possibly with a temperature of 101° F. This continues a short time, and then there is a return to the normal temperature. When there is simply œdema, the temperature scarcely ever rises above 101—102° F. This remains for only twelve hours, and during the remainder of the attack the temperature is normal. The pulse is always rapid, soft, and compressible. There has been no exception to this noted. The pulse ranges between 90 and 110 per minute. Profuse sweating is often present, especially during the night. It may be localized.

The local symptoms vary with the part of the throat involved. Sometimes they are prominent, sometimes they are wanting. Hemorrhages are common. They are usually slight, but recur frequently.

This is a constitutional disease due, the author believes, to some change in the blood, exactly what he was unprepared to say, but probably due to micro-organisms. He thought that the disease described was nothing more than influenza, the same influenza which has been described so often, particularly by Graves. The disease has not been limited to the Mississippi Valley, for the speaker had seen cases of it from all parts of the country.

The treatment is very simple. The system must be saturated with benzoate of sodium. Under this remedy the affection subsides in a few days or hours. If left to itself, it may continue for weeks and even months.

DISCUSSION.

Dr. W. H. DALY, of Pittsburg, Pa., had seen a number of cases similar to those described. He did not consider the condition as one of œdema, but rather

as a sub-acute inflammatory condition of the mucous membrane. There was a sufficient number of these cases, which had thin and superficial diphtheritic patches in various parts of the fauces, to warrant him in considering the disease of a diphtheroid character. This view was confirmed by the subsequent occurrence of glandular enlargement in nearly all the cases.

Dr. J. C. MULLALL, of St. Louis, Mo., confirmed the statements of Dr. Glasgow from his own experience with the disease in St. Louis, and reported a case in which the affection had recurred three times.

Dr. S. H. CHAPMAN, of New Haven, Ct., had seen cases similar to those reported, but agreed with Dr. Daly that they were rather of a diphtheritic character. In one case the disease attacked a child aged seventeen months. In the same family was a boy, nine years of age, with well-marked diphtheria. The first thing noted in the case of the child was a dense swelling of the submaxillary gland. There was great prostration and some fever, temp. 100° to 102° F. The swelling increased until it extended from the jaw to the clavicles. There was hoarseness and difficulty of breathing, which daily increased. By the seventh day it had increased so much that deep incisions were made into the gland, but no pus was found. A tube was then inserted into the larynx and allowed to remain four days. The child during this time was kept alive by rectal alimentation. At the end of thirteen days the swelling begun to diminish. The knife was again used, and a quantity of pus discharged. The child recovered.

Dr. C. E. SAJOURS, of Philadelphia, Pa., referred to a case of this disease which occurred to a young man living on a farm in New Jersey, twenty miles from any neighbours, and who had not been exposed to diphtheria. The throat presented small, white patches, not resembling the yellowish, leathery membrane seen in diphtheria. Slight oedema of the soft palate was also present. The temperature was high throughout the entire course of the disease. There was incessant pain in the back and in one limb. After trying a number of remedies, he was placed upon benzoate of sodium.

Dr. D. B. DELAVAN remarked that this discussion was a timely one, coming as it did in connection with a recent celebrated case. He had himself seen a case suffering from a disease similar to that described, in which sudden death took place from heart failure. Other apparently similar cases had been occasionally reported. He believed that they were analogous to those described by the older French authors and Sir Morell Mackenzie as acute oedematous laryngitis, and, more recently, by Senator, under the name of acute infectious phlegmon of the pharynx. He thought that the possibility of the disease being diphtheritic had not been sufficiently eliminated. In view of the dangers attending it, he urged that the affection be more carefully studied and explained, and he thanked the reader of the paper for the valuable light which he had thrown upon it.

Dr. W. C. GLASGOW, of St. Louis, Mo., remarked that he had at first regarded these cases as diphtheritic. The membrane in them is adherent. It can be torn away, but a bleeding spot is left. Applications made it worse. If left to itself, it gradually grows thinner and thinner until it resembles a white, pearly patch. Diphtheritic membrane does not pursue such a course. The glandular enlargements always occur, even where there is no exudation. He did not think that anyone would assert that this oedema was diphtheria.

Dr. GEORGE M. LEFFERTS, of New York, presented the histories of three rare cases, each accompanied by a superb illustration:—

- I. Large papilloma of the velum palati.
- II. Large fibroma of the tonsil.
- III. Tumour of the nasal septum.

348 *The Journal of Laryngology and Rhinology.*

Dr. W. H. DALY, of Pittsburg, Pa., read a paper entitled *Some Discursive Remarks based upon a few Observations of the Intimate Relations of Chronic Disease of the Upper Air-Tract and Neurasthenia*. His experience had led him to believe that there was an intimate relation in conditions of the intra-nasal cavities and neurasthenia in some of its forms. This view was based upon the study of twenty-five cases. In these cases removal of the nasal trouble was followed by relief of the neurasthenic condition, no special treatment being directed to the general condition.

DISCUSSION.

Dr. J. O. ROE, of Rochester, N. Y., said that most of the members had seen many such cases, and they illustrate the effect that a constant local irritation will have upon the system. The constant annoyance of a local irritant will sooner or later produce a depressed condition of the system.

Dr. F. W. HINKEL, of Buffalo, N. Y., remarked that before we could admit that neurasthenic condition could be the result of any nasal lesion as the sole cause, a careful analysis of all the constituent conditions would be required.

Dr. S. W. LANGMAID, of Boston, Mass., thought that often the nasal trouble was the result of the neurasthenia. It often happens that operative interference fails to relieve the nasal condition because the neurasthenia is not cured.

Dr. C. E. SAJOUS, of Philadelphia, Pa., was inclined to support rather vigorously the view of Dr. Daly. In a number of cases he had observed that there were fluctuations in the nervous condition according as the local disease improved or became worse. In one case of neurasthenia associated with deviated septum, correction of the displacement was followed by improvement in the nervous condition. The operation, however, failed to be permanent, and with the return of the deviation the neurasthenic condition recurred, to again disappear with a more thorough operation upon the septum.

PRESENTATION OF INSTRUMENTS.

Dr. SAMUEL JOHNSTON, of Baltimore, Md., referred to the ease with which the mouth and nose could be washed out by means of an ordinary seltzer bottle filled with soda water, a rubber tube being attached to the delivery pipe.

Dr. J. O. ROE, of Rochester, N. Y., exhibited cesophageal bougies, made of hard rubber, with a flexible tip of soft rubber. Also jewellers' saws in frames, suggested to overcome the objection of flexibility in the ordinary Bosworth saw. Also a powder-blower with reservoir.

Dr. E. CARROLL MORGAN exhibited an instrument to pull the return forward in applying the galvano-cautery to the pharyngeal tonsil.

AFTERNOON SESSION.

Dr. JOHN MACKENZIE, of Baltimore, Md., read a paper on *Some Points in the Pathology and Treatment of Diseases of the Nasal Pharynx*.

The following conclusions were presented:—1. The nasal pharynx is, in quite a large proportion of individuals, extremely sensitive to reflex-producing stimulation. 2. The areas chiefly involved are the posterior portions of the turbinated erectile tissue, and various points along the upper and posterior portions of the nasal pharynx. 3. In consequence of this extreme sensitiveness, a local pathological process, which in many persons would give rise to no reflex neuro-vascular changes, may awake a host of neurotic phenomena referable not only to the region primarily involved, but also to other and even remote organs of the body. These may include cough, asthma and various neuralgic affections; or the local structural lesion may be the starting point of various sympathetic affections of the respiratory tract. 4. That these classes of naso-pharyngeal neuroses are explicable on the

same general principle laid down in the article on "Neuroses of the Nose," and the pathology of the nasal and post-nasal affections is therefore one and the same.

5. That the treatment should be carried out according to the general directions laid down in the article just mentioned. 6. That when morbid processes originate in the pharyngeal tonsil, attention should not be directed to the bursa alone, but an endeavour should be made to extirpate the tonsil, as far as possible, in its entirety. 7. That while a favourable prognosis cannot be safely predicted by treatment of the bursa alone, extirpation of the pharyngeal tonsil often affords a most favourable prospect in long-standing cases of post-nasal trouble.

Dr. D. BRYSON DELAVAN, of New York, read a paper entitled *Observations upon the Condition known as Adenoid Hypertrophy at the Vault of the Pharynx, and the Methods used for its Removal.*

A case was described in which, with each acute attack of catarrhal trouble, there would be enlargement of the adenoid tissue of the vault of the pharynx, forming a large tumour. When the attack passed away the hypertrophy disappeared.

The author then referred to the methods of operation and the accidents which might occur. As the operation was attended with considerable pain, he insisted upon the employment of anaesthesia. He had in a number of cases employed chloroform with satisfactory result, the object being to avoid the profuse mucoid secretion which is apt to follow the use of ether. Where chloroform is used, the operation is performed with the patient on his back.

DISCUSSION.

Dr. F. H. HOOPER, of Boston, Mass., reported a case of a young lady who came to him with acute coryza, and in whom he found a large-sized adenoid of the vault. After the attack subsided the adenoid almost entirely disappeared. In order to avoid error the post-nasal probe should be always used; with it conditions not apparent to the eye may be recognized. He had never seen serious hæmorrhage follow operations for the removal of this tissue. In operating he first removes all that is possible with the post-nasal forceps, and completes the removal with the finger-nail. He had never used chloroform. The amount of secretion, after the use of chloroform, varies very much in different cases.

Dr. HARRISON ALLEN, of Philadelphia, Pa., advocated the use of the finger as a means of detecting these post-nasal affections. To examine the case thoroughly requires the use of an anæsthetic. In the treatment of adenoid hypertrophy it is better to remove all the diseased tissue at one sitting, under ether, than to remove it in portions at different times.

Dr. J. C. MULHALL, of St. Louis, Mo., held that for practical purposes the pathology of the pharyngeal tonsil was exactly the same as that of the faucial tonsil. In operating he had applied cocaine thoroughly to the pharyngeal wall and soft palate, to avoid the disagreeable sensation caused by the scraping of the forceps against the healthy pharyngeal wall, and had succeeded very well.

Dr. F. I. KNIGHT, of Boston, Mass., related a case of acute hypertrophy of the pharyngeal tonsil, in which the surgeon proposed to perform tracheotomy preparatory to removing the tumour. When about to operate, he found that the growth had disappeared.

Dr. WILLIAM E. CASSELLBERRY, of Chicago, Ill., referred to the importance of thoroughly eradicating these growths. In two cases in which portions of the mass had been left, the reflex symptoms, while greatly lessened, continued to recur. In two cases he had attempted to use the mirror during operation. To do this he pulled the soft palate forward by two rubber bands, passing through each nostril. In one case he succeeded to a certain extent, but in the other failed

This procedure, however, greatly facilitated the operation. In order to prevent the passage of blood into the larynx he was in the habit of bending the head forward at intervals so as to allow the escape of the blood.

Dr. J. N. MACKENZIE, of Baltimore, Md., as a rule operates without anesthesia, removing a portion of the mass every day, or every other day, continuing the operation for a week or ten days. He had seen very little pain from the operation. There is one point in regard to the nature of this so-called adenoid. He had examined a number of these growths under the microscope, and they do not differ from papillomatous growths. There is also, in addition, a true adenoid growth; this is more difficult of removal than the former.

Dr. F. H. HOOPER, of Boston, Mass., read a paper on *Experimental Methods of Studying the Action of the Intrinsic Muscles of the Larynx*.

The author exhibited the apparatus which he had employed in studying the effect of stimulation upon the internal thyro-arytenoid, the lateral crico-arytenoid, and posterior crico-arytenoid muscles. The larynx of a dog is quickly excised, and the mucous membrane removed, and the muscles subjected to electrical stimulation.

Dr. F. I. KNIGHT, of Boston, Mass., read a paper on *Dysphonia Spastica*.

The speaker briefly reported the four cases of this affection which he had seen in the last seven years. He regarded the condition as rare. There is probably a spasmodic action of the muscles of phonation, or respiration, or both, giving rise to a high-pitched, jerking voice. The prognosis is unfavourable. The object of the paper was to elicit reports of other cases.

DISCUSSION.

Dr. G. W. MAJOR, of Montreal, Canada, had seen one case of aphonia spastica, and two cases of dysphonia spastica. In none of the cases was benefit obtained by treatment.

Dr. S. W. LANGMAID, of Montreal, Canada, had reported one case in which treatment was unsuccessful. The patient, when he had to use his voice, prescribed for himself a little whiskey, and this answered temporarily. There seems to be no change in the voice since the affection first came on, fifteen years ago.

Dr. D. BRYSON DELAVAN, of New York, said that in one case coming under his observation, the patient was able to talk tolerably well after fortifying himself with a stimulant. This patient seemed to improve under local treatment to the larynx and vocal training, but the treatment could not be continued.

Dr. C. E. BEAN, of St. Paul, Minn., had seen one case two years ago. Various methods of treatment had been employed without benefit. The voice is now the same as at the commencement.

Dr. RUFUS P. LINCOLN, of New York, read a paper on *Recurrent Laryngeal Growth*. The patient had come under the care of the late Dr. Elsberg, twenty-four years ago. Dr. Elsberg first operated by the intra-laryngeal method, but could not remove the growth. Twenty-two years ago he did laryngotomy, and removed the growth. The microscopical examination made at that time was unsatisfactory. There was no further trouble until a short time ago, when the growth recurred. Dr. Lincoln recently removed the tumour, which upon microscopical examination proved to be a papilloma.

Adjourned.

FRIDAY, MAY 31st.—SECOND DAY.—MORNING SESSION.

Dr. T. AMORY DE BLOIS, of Boston, read a paper describing *Some of the Manifestations of Syphilis of the Upper Air-Passages*, and exhibited drawings showing the conditions which he had found.

DISCUSSION.

Dr. F. H. BOSWORTH, of New York, referred to the necrosis of bone which occurs in syphilitic ulcerations. He did not believe that syphilitic ulcerations extended from one part to an adjacent part. Such ulceration is due to the breaking down of a gummatous deposit, and does not extend beyond the limits of the original gummatous deposit. The necrosis of the bone he held to be due to the interference with nutrition of the bone caused by the original deposit, and that, after the breaking down of the gummatous infiltration has taken place, the ulceration is kept up by the necrosed bone, and treatment should, therefore, be directed to this point. He agreed with the reader of the paper, that potassium iodide was to be employed until the disappearance of the lesion, and that mercury should be used subsequently. Operative interference should be postponed until the syphilitic disease was well under control.

Dr. C. C. RICE, of New York, said that in these cases there was cicatrisation and contraction above the visible adhesions, so that, after the adhesions are freed, the results as regards phonation and respiration, are not what would be expected. This contraction in the post-nasal pharynx requires to be stretched, in order to obtain good results.

In regard to operations, in one case where there were adhesions, and where there had been no syphilitic manifestation for several years, he separated the adhesions with the galvano-cautery. The ulceration which followed took on an unfavourable character, and continued to spread despite constitutional and local treatment.

Dr. J. N. MACKENZIE, of Baltimore, protested against the too vigorous removal of diseased bone from the nasal passages. It frequently happens that more is pulled out than is desired, and sometimes from dangerous regions.

Dr. WM. H. DALY, of Pittsburg, objected to the use of the galvano-cautery in tissues of the low vitality of syphilitic tissues. He believed that the galvano-cautery was a much abused useful instrument. He felt satisfied that better results could be obtained in the fauces, in the nose, in the larynx, in any operation, by using a sharp cutting instrument, and allowing as free hæmorrhage as is consistent with good judgment. The freer the hæmorrhage, within certain limits, the more certain is there to be immunity from septicæmia, and rapid union.

Dr. CHAS. H. KNIGHT, of Boston, read a paper entitled *Note on the Galvano-Cautery in the Treatment of Hypertrophied Tonsils*.

This paper was supplementary to one read two years ago. The galvano-cautery cannot be satisfactorily used in young children, and in them the guillotine is preferable. In older children and adults, the galvano-caustic point will prove of service. The galvano-loop was especially considered. With this the operation can be done at one sitting. The portion removed by the loop does not indicate the real extent of the operation. A portion of the remaining tissue sloughs, so that the operation with the loop is better than with cutting instruments. There seems to be very little more pain with the galvano-loop than with the guillotine. The former operation is, however, more disagreeable, on account of the odour of burning flesh.

DISCUSSION.

Dr. T. A. DeBois, of Boston, had used the electrolytic needle with good effect. Under cocaine, the pain of the procedure is very slight. Half-a-dozen punctures each day will in a short time produce great diminution. This method is used only in adults. In children the tonsils are very apt to diminish in size without treatment.

Dr. C. E. SAJOUS, of Philadelphia, had frequently used the galvano-point,

but had to make as many as eighteen or twenty punctures in order to obtain satisfactory results. After the second visit the patient expresses very little objection to the operation. The galvano-point is useful in the treatment of enlarged tonsils, especially where the density is not great. Here the cicatricial contraction assists in reducing the size.

Dr. WILLIAM H. DALY, of Pittsburg, believed that in the normal throat no portion of the tonsil extended beyond the line of the half arches, and in abscission of the tonsil our object should be to restore the throat as nearly as possible to its normal condition. This can be thoroughly done with the tonsillotome.

Dr. F. H. BOSWORTH, of New York, could see no reason for treating this condition by means of eighteen or twenty punctures, when the whole trouble could be removed in a few seconds by a very simple operation.

Dr. C. C. RICE, of New York, believed that there are a few cases in adults where there has been frequent attacks of tonsillitis, and the tonsils are greatly congested, where the galvano-cautery is of service.

Dr. JOHN O. ROE, of Rochester, read a paper entitled *The Treatment of Diseased Tonsils when Unattended with Hypertrophy.*

The conditions referred to are of marked clinical importance, but their consideration is ignored by writers upon these subjects. The most common form of disease of the tonsil is hypertrophy, and in children it is rare to find any other form. During adolescence the tonsils may diminish in size, but they do not return to their normal conditions. The small tonsils in adults have often followed hypertrophy. This is a point in favour of the removal of enlarged tonsils. The two forms of disease of the tonsil to which attention was called were, first, chronic disease of the crypts and lacunæ, and, second, fibroid degeneration of the stroma of the organ, the cicatricial form of the disease. The first is the result of chronic follicular catarrh of the tonsil, and is usually associated with chronic follicular catarrh of the pharynx. The treatment of these conditions is important, not only on account of the disease itself, but also because they are the source of recurrent trouble, and may cause reflex symptoms. Local applications are practically useless. The galvano-cautery, which is useful in the treatment of hypertrophied tonsil, may be employed here, but is not as efficient as it is in the former condition. The treatment *par excellence* is ablation with the knife. The diseased crypts may be laid open and cauterized with chromic acid or fused nitrate of silver. Excision is, however, the best plan. It is rarely advisable to attempt removal of the whole mass at one time, on account of the adhesions to the pillars. The use of cocaine lessens pain and hemorrhage. In every instance in which the speaker had employed excision, the cure had been perfect, with entire relief from the attendant symptoms.

DISCUSSION.

Dr. H. L. SWAIN, of New Haven, reported a case in which recurrent attacks of swelling of the lingual tonsil were caused by the presence of hard masses in the faucial tonsil. The attacks were subdued by treatment of the crypts, by cutting into them with the galvano-cautery and thoroughly cauterizing their interior.

Dr. J. SOLIS-COHEN, of Philadelphia, had seen many cases of spasmodic cough due to nothing but the presence of these masses in the crypts and lacunæ of the tonsil. These had been found not only in enlarged, but also in apparently contracted tonsils. It is sometimes necessary to produce some gagging so that the posterior portion of the tonsil presents, in order to discover this condition. In enlarged tonsil the best treatment is probably excision, but in these atrophied tonsils he had pressed the matter out with a blunt scoop, and then applied a

simple astringent consisting of creosote, gr. j., iodine, gr. j., potassii iodide, gr. v. and glycerine, ʒ j. If this does not answer, he cuts the crypts open with scissors and scrapes them as thoroughly as possible. This affection is not as thoroughly appreciated by the profession as it should be. He had seen cases where cough, existing for five to ten or more years, had been permanently relieved by treating this condition.

Dr. WILLIAM H. DALY, of Pittsburg, referred to cases in which the patients were really sick as the result of these lacunæ becoming filled with cheesy matter.

Dr. F. I. KNIGHT, of Boston, described a case of long-continued irritative cough, in which the removal of a cretaceous mass, as large as a pea, from a crypt of the tonsil, was followed by complete cure.

Dr. SAM. JOHNSTON, of Baltimore, referred to three cases in which the collection, instead of consisting of soft cheesy material, was hard, looking like spicules of bone, and adhered with great intensity. These bodies were not limited to the tonsil, but were also found on the lower part of the fauces and on the post-pharyngeal wall.

Dr. HARRISON ALLEN, of Philadelphia, stated that he had referred to this condition in a paper published in 1882. The solid matter is retained in the crypts. This pressure is often produced by the anterior fold. Sometimes the secretion has gotten out of the tonsil, but is still retained behind the fold. More frequently these masses are beneath the tonsil, under an adventitious membrane.

Dr. J. SOLIS-COHEN, of Philadelphia, read a paper entitled, *A Case of Sarcoma of the Thyroid Gland*. The case was one of sarcoma of the thyroid gland, with pressure on the right sympathetic nerve; unilateral tonic spasm of the laryngeal muscles; intermittent clonic spasm of the muscles of the opposite side. There was stenosis from the pressure of the tumour. For this, tracheotomy was performed. This afforded relief for a number of months. Hæmorrhage occurred twenty months later, but was controlled without much difficulty. Gradually marked disturbance of the two pneumogastries supervened, and there was great interference with respiration. It was accidentally discovered that any irritation of the mucous membrane of the trachea would relieve the dyspnoea, and at once the lividity of the face would disappear. This effect was readily produced by touching the posterior wall of the trachea with a bent wire passed through the tracheotomy tube. The patient died of exhaustion.

Adjourned.

At the invitation of the president, the afternoon was devoted to an excursion to Mount Vernon.

SATURDAY, JUNE 1ST—THIRD DAY—MORNING SESSION.

Dr. C. C. RICE, of New York, read a paper entitled, *Some Unusual Manifestation of Tuberculosis of the Larynx*. The first unusual manifestation referred to, was where syphilis and tuberculosis of the larynx coexist. Here the lesions of one process mask those of the other, and the prognosis depends upon which is the more active; this combination is more common than is generally supposed, and probably some cases of cure of supposed tuberculosis should be placed under this head. A second unusual manifestation, is the engrafting on the tuberculous process of a new tissue, rendering the diagnosis difficult. This new tissue may be of two forms, either a granulation tissue or papillomatous growth. The third condition is adhesive inflammation at the interior ends of the vocal bands. This must be rare, as the tubercular process shows little tendency to cicatrisation and healing. It is

liable to occur only when the cords are immovable and there is general proliferation of tissue. The last condition referred to, was one in which the tubercular deposit in one arytenoid was the only manifestation of the disease in the larynx, the remaining parts of the larynx being perfectly normal.

DISCUSSION.

Dr. W. H. DALY, of Pittsburg, was satisfied, from his experience in three or four cases, that in some instances tubercular ulceration of the larynx may be cured. In these cases there was no evidence of syphilitic disease, and in at least some of them, the tubercle bacilli were found. Recovery has followed the use of alkaline sprays and inhalations, with the free use of iodoform. He believed that tuberculous ulceration of the larynx might occur, without evidences of tubercular deposit elsewhere.

Dr. J. C. MULLHALL, of St. Louis, thought that there might be a catarrhal ulceration of the larynx, and that this was a curable condition. He did not think that it would be easy to prove that tubercular disease of the larynx was ever primary, although it is sometimes the first sign of the condition. In tubercular ulceration of the larynx, he had used pure lactic acid, and had seen the ulceration heal, but he could not say that he had ever seen life prolonged to any appreciable extent.

Dr. F. I. KNIGHT, of Boston, had not the slightest doubt, that tubercular ulceration of the larynx does get well. He had seen such ulcers heal under alkaline sprays and iodoform, and more especially under lactic acid. He thought that it was possible to have the tubercular disease of the larynx as a primary affection, but in the majority of cases, careful examination will reveal evidences of disease of the lung. He did not regard changes in the respiratory murmur and in respiration, as the most important signs of early phthisis. He placed more reliance upon the localized *râles* which are heard on coughing. In order to develop this sign, the patient should not inspire immediately before or after the cough, but should cough from a rest. He had seen but a few cases in which he regarded the disease as primary, in the larynx.

Dr. DELAVAN had found that lactic acid, applied to superficial tubercular ulcers of the pharynx had caused them to heal. With deep ulcerations this had not been the case.

Dr. M. E. CASSELBERY, of Chicago, reported a case in which he found catarrhal ulcerations of the larynx. These readily healed under cleansing treatment, and there had been no return of the ulceration during a period of two years.

Dr. J. N. MACKENZIE, of Baltimore, thought that the question of the possibility of the existence of primary tubercular disease of the larynx had been settled by examinations, upon the post-mortem table, where in a few cases, careful examination of the body revealed tubercular deposit nowhere but in the larynx. While a tubercular ulceration of the larynx may heal, this by no means indicates the cure of the disease. He had seen the co-existence of syphilis and tuberculosis in the larynx several times, and it is difficult to say which is the syphilitic and which the tubercular ulceration. The only test is that of treatment. He had never seen what could be called catarrhal ulceration of the larynx. In regard to treatment, he thought that more harm than good was produced by the employment of harsh measures. There is a form of ulceration which occurs in the later stages of phthisis principally near the bifurcation of the trachea, which is probably due to the corrosive action of the sputa.

Dr. W. C. GLASGOW, of St. Louis, believed that tubercular ulcers of the larynx were never healed. He had seen cases of ulceration of the larynx heal

under treatment, but he did not consider these to be true tubercular ulcerations. These have healed under simple treatment. He had used with great satisfaction, during the past two years, the peroxide of hydrogen in the treatment of such ulcerations, and under its use there is rapid healing. He did not believe in primary tubercular disease of the larynx. In all the cases that he had seen, there had been more or less disease of the lungs. In true miliary tuberculosis of the larynx, he had always found some evidence of disease in the lung, and these cases he thought never recovered. He had seen cases of catarrhal ulceration of the larynx.

Dr. S. SOLIS-COHEN, of Philadelphia, read a paper entitled, *The Occasional Topical Use of Solutions of Nitrate of Silver in the Treatment of Chronic Laryngitis*. The cases reported were not due to nasal disease or obstruction; nor were they those in which all topical treatment is unnecessary. Where indigestion, constitutional disease, or diathesis have been present, these have received due attention. It was simply of topical applications for the relief of local conditions that he spoke; chronic laryngitis in which, after all discoverable sources of irritation, local or general, have been removed, and approved topical treatment suited to the individual case has been faithfully tried, for a longer or shorter time, improvement takes place to a certain point and then stops. Perhaps all visible evidences of disease, except an irregular, pinkish striping of the vocal bands have disappeared, or perhaps there would be a faint uniform coloration, or may be only a loss of lustre, but something there would be that persisted, and that prevented the patient from resuming with comfort full use of the voice in singing or speaking, or perhaps even in ordinary conversation.

It is in such conditions as these, the last obstinate remnants of the disease, that he had derived considerable satisfaction from the topical use, by sponge, cotton-wad, or brush, of weak solutions of silver nitrate, about ten grains to the ounce, applications being made every day, for two or three days, until some congestive reaction is produced; after that at longer intervals. In the course of treatment, too, in some cases before reaching the last stage above described, he had found recovery apparently hastened by occasionally substituting stronger solutions of silver nitrate, forty to sixty grains to the ounce, for the iodized glycerine, tannin, tar, or other routine application. A visible increase in congestion immediately follows the use of the silver solution, but this passes off quickly, and at the next visit great improvement is usually manifested. These applications are made once in about two or three weeks according to circumstances.

Dr. C. E. BEAN, of St. Paul, read a paper entitled *Tuberculosis of the Tongue*. The author described two cases of tuberculosis of the tongue, one in a male and the other in a female. In both the disease had made extensive progress when they came under observation, and no operative measures seemed warrantable. In both these there was well-marked involvement of the lungs. Death occurred in both cases a short time later. Attention was called to the differential diagnosis between tuberculosis, carcinoma, and syphilis. Carcinoma is to be excluded by the absence of glandular enlargement, and of the lancinating pains peculiar to that disease. The question of syphilis can only be determined by the history and by the effects of anti-syphilitic remedies.

Dr. J. C. MULHALL, of St. Louis, read a paper entitled *The Local Treatment of Diphtheria*. The method of treatment which he suggested was based upon the following considerations: 1. That diphtheria is a germ disease. 2. That the specific microbe, in the majority of cases, selects the tonsils. 3. That unless checked by treatment the colonization of these germs results in local putrefactive changes with subsequent involvement of the general system. 4. That implication of the

larynx or of the nasal passages, increases the mortality. 5. That the disease is acutely adynamic. It had occurred to him that in this disease it would be better to wash out the throat than to spray it. This is accomplished by means of an ordinary syringe, and in this way the throat can be washed out without difficulty. The patient should be kept in the recumbent position, the head being brought to the edge of the bed. This procedure is repeated every hour during the day, and at no time is a longer period than three hours allowed to elapse. The only solution that he has used has been carbolic acid with compound solution of iodine. The water is frequently saturated with boracic acid.

The post-nasal space requires careful attention. In every case of diphtheria the nasal cavities should be kept sterile from the first. Where it is certain that the nasal cavities are not affected, the insufflation of a non-irritating, antiseptic powder may be sufficient. Where there is uncertainty, or where it is certain that infection has taken place, the nasal cavities are to be washed out with a weaker solution of the same kind—not more than a tea-spoonful for each nostril. For this purpose he recommended a small glass syringe with a bulbous extremity, to prevent injury to the nose. After cleansing he frequently resorts to solvents, and has obtained the best results with papoid. In laryngeal diphtheria, inhalation is the only practicable method. The inhalation of the vapour from slaking lime should not be forgotten. In several cases of laryngeal diphtheria he had obtained good results by placing the patient in a small room which had been fumigated with sulphur, and by keeping water, to which has been added pine-tar and turpentine, constantly at the boiling point.

DISCUSSION.

Dr. W. C. GLASGOW, of St. Louis, believed that diphtheria is a blood disease rather than a local affection, and that the only objects in local treatment are cleanliness, disinfection, and loosening of the membrane. One remedy which he had used with advantage was the peroxide of hydrogen by spray. It seems to act by lifting up the membrane, by the formation of gas. He considered the constitutional treatment as the most important, and he thought the bichloride of mercury and benzoate of soda were the most successful remedies. With these he uses very simple local treatment. In the cases of severe local manifestations the method described by Dr. Mulhall would be valuable.

Dr. D. BRYSON DELAVAN, of New York, referred to the value of the bichloride and cyanide of mercury, in the treatment of diphtheria, the former being the most destructive agent to the streptococcus known.

Dr. W. H. DALY, of Pittsburg, had on previous occasions recommended the use of calomel in the treatment of this affection, and he thought that it was as efficient as a local agent, as it was active as a constitutional remedy. He believed that calomel in large and frequently repeated doses—two, three, four, or five grains to children, one and a half, to two years of age—exerted a valuable therapeutic effect. He thought that a large part of the effect, was from the local action upon the diphtheritic poison.

Dr. HARRISON ALLEN, of Philadelphia, referred to the value of trypsin, as a solvent for the diphtheritic membrane.

Dr. F. WHITEHALL HINKEL, of Buffalo, read a paper entitled, *Some Manifestations of Lithæmia in the Upper Air-passages*. The influence of lithæmia and allied conditions upon the air-passages, has received little attention in laryngology, as is shown by the scanty literature extant upon the subject. There is a distinction to be made between distinctly gouty sore throat, and that due to lithæmia or some allied conditions. The subjects of the latter may never have attacks of true gout,

nor irregular manifestations of it—indeed, as a rule, they are not so affected. The term lithæmia is elastic in application to cases, varying from extreme digestive and nervous disturbances to almost normal health; consequently its manifestations in the upper air-passages are not sharply distinguished, nor are they typical or pathognomonic. One of the most characteristic manifestations, is a patchy or streaked irregular congestion of the mucous membrane of the larynx and pharynx. In the former case a dry, explosive cough accompanies; in the latter, uneasiness or positive pain is referred to the sides of the throat, occasionally extending to the ears. These cases are notably irritated and made worse by stimulant applications. Local sedatives and general antilithic treatment give the best results. Occasionally, acute naso-pharyngeal catarrh is a manifestation of an exacerbation of the lithæmic tendency. Alkaline and diluent medication, with proper diet, give more relief than local treatment. Obstinate relaxation of the nervous plexuses of the turbinated bodies in some individuals, appears associated with lithiasis. Such cases stand operative—caustic—applications badly, and receive little or no benefit from them. Some of these cases are much improved by antilithics and general hygiene. Others are intractable on account of uncontrollable lithæmic tendencies.

Dr. E. FLETCHER INGALS, of Chicago, presented a paper on "Warty Growths of the Nasal Passages," and Dr. WM. PORTER, of St. Louis, one upon "Hæmorrhage from the Larynx."

OFFICERS FOR ENSUING YEAR.

President—Dr. John N. Mackenzie, Baltimore; *1st Vice-President*—Dr. Edgar Holden, Newark; *2nd Vice-President*—Dr. C. E. Bean, St. Paul; *Secretary and Treasurer*—Dr. C. H. Knight, New York (No. 20 West Thirty-first Street); *Librarian*—Dr. T. R. French, Brooklyn; *Council*—Drs. Franklin H. Hooper, Boston; George M. Lefferts, New York; Frederick I. Knight, Boston; D. Bryson Delavan, New York; *Representative on the Committee of the Congress of American Physicians and Surgeons*—Dr. Harrison Allen, of Philadelphia.

The following were elected to membership; Drs. William E. Casselbery, Chicago; H. L. Swain, New Haven.

The Association then adjourned to meet in Baltimore, in 1890.

D Bryson Delavan.

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THE nauseous taste and irritating properties of many of the well-known purgative waters is due to the magnesia salts contained in them. For cases in which it is desirable to avoid this, and to obtain the full hepatic action of sulphate of soda, we know of no more suitable water than the Rubinat, which is prepared in Spain from the natural spring. The composition of this water is indicated by the following analysis made by Prof. Bouchardat, of Paris :—

Sulphate of soda	...	...	...	1485'368
.. potash	...	...	...	3'548
.. magnesia	...	...	...	50'301
.. lime	...	...	...	29'934
Chloride of sodium	...	...	...	31'708
Traces of silica, alumina, ferric oxide				462

Total solids ... 1601'321 grs. per gal.

For all conditions of hepatic congestion, catarrh of the mucous membranes of the alimentary tract, accumulations of uric acid in the body, in short, the functional derangements produced by too high living or sedentary occupations, this water should prove invaluable as a safe and effective aperient.

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LUPUS OF THE THROAT AND NOSE.¹

BY DR. J. MIDDLEMASS HUNT, M.B.,

Surgeon to the Hospital for Diseases of Throat and Nose, Liverpool.

NOTWITHSTANDING the valuable contributions of Chiari and Riehl, of Lefferts, of Homolle, and of Lennox Browne, on the subject of lupus of the throat and nose, there are still many questions regarding this disease which have not yet received a satisfactory solution. How is it related to lupus of the skin? By what means is infection carried? Does it ever attack primarily the mucous membranes, and is it then capable of being diagnosed? What is the prognosis as to laryngeal stenosis resulting, and as to the danger of a pulmonary or a general tuberculosis being developed? And, lastly, what are the best methods of treatment we possess for arresting its progress?

These are the questions I desire to bring before this Society, in the hope that our discussion of them may help to establish some points at present involved in more or less obscurity.

First, as regards etiology. Lupus of the throat and nose may originate in three ways: (1) By direct extension of the external disease along the mucous membranes; (2) as a secondary deposit at a more or less distant part; (3) by a primary deposit in the mucous membrane, without any external disease whatever. The first condition we see every day in cases of lupus attacking the ale of the nose at the junction of the skin and mucous membrane, and subsequently destroying the cartilaginous septum and the anterior ends of the lower turbinates. In many of these cases, I believe, the disease really originates in the mucous membrane, but does not come under our observation till it has spread considerably, and the exact point of origin cannot be determined. The preference of lupus for attacking this part is no doubt due to its liability to abrasion during nasal catarrh. Another way in which lupus spreads to the pharynx

¹ Read before the British Laryngological Association, June 26, 1889.

is by way of the gums and buccal mucous membrane. This, however, is not so commonly met with as the extension along the nasal passages.

The occurrence of lupus as a secondary deposit in the larynx or pharynx is by no means so rare as was at one time supposed.

The following statistics, referring to cases in which the larynx was involved, show how frequently this condition will be met with if all cases of external lupus be examined :—

Holm	...	in 90 cases found 6 per cent.
Chiari	... „ 68 „ „	8·8 „
Browne	... „ 25 „ „	14 „
Haslund	... „ 109 „ „	9 „
Marty	... „ 89 „ „	9·1 „

Putting the above results together, we find that, in 381 cases of lupus of the external parts, there was secondary deposit in the larynx in 8·9 per cent.

By adding to the above those cases in which the pharynx or palate were alone involved, the percentage becomes much higher. Lennox Browne sets it down at 20 per cent., and that figure agrees with my own observations of 30 cases examined recently.

In view of the statistics I have quoted, I cannot see the foundation for Schroetter's conjecture that the larynx will not be found to be involved in more than 3 per cent. of all cases of lupus.

By what means does the secondary deposit take place? We may regard it as now fairly established that lupus is a localised tuberculosis in which the tubercle bacillus is present in small numbers. Infection may then take place by way of the lymphatics, or directly by the implanting of the bacillus on an abraded surface.

As the lymphatic glands are almost never enlarged in true lupus, I am inclined to regard the secondary deposit as due to direct infection. In support of this view it is to be noted that all cases of secondary lupus in the throat or nose have followed on lupus of the face, and never lupus of the trunk or extremities. It is easy to imagine how secretions could be conveyed to the mucous membranes in such cases. Again, the parts most liable to infection—the uvula and epiglottis—are also those most liable to injury.

That lupus may also originate primarily in the mucous membrane of the pharynx or larynx is now established beyond all doubt. Quite a large number of such cases are on record by competent observers. Of these the most important are the cases of Chiari and Orwin, in which the subsequent appearance of the disease on the skin confirmed the diagnosis.

Are we able to diagnose with certainty cases of primary lupus when there is no confirmatory evidence on the skin?

I think we are; especially if we have the opportunity of watching the progress of the case for some time. Practically the difficulty of diagnosis is limited to distinguishing lupus from hereditary and tertiary syphilis. In lupus there are two general conditions of the mucous membranes of the larynx and pharynx which strike one in the majority of cases, anæmia and anæsthesia.

The anæmia is most pronounced in the larynx, and to a less degree in the pharynx.

It is not so extreme nor so general as in laryngeal phthisis, but forms a marked contrast to the general congestion observed in syphilis. The anæsthesia is a very constant and characteristic symptom; but in one of my cases, where tracheotomy had been performed, hyperæsthesia was so great that a strong solution of cocaine had to be applied before the larynx could be examined. Though this symptom of anæsthesia is dwelt upon by most observers as being present in lupus, I should mention that Ramon de la Sota, speaking from a seemingly large experience, states that he has not observed any change in the sensitiveness of the mucous membrane.

The early changes in lupus of the throat are best observed in the uvula and epiglottis. The uvula becomes thickened and nodular, the colour of the mucous membrane remaining normal or becoming slightly heightened. After a time superficial ulceration of a sluggish character, and with little deposit on its surface, commences on one of the nodules, and spreads slowly and quite painlessly till the whole uvula is destroyed, or heals at one part only to start afresh in another.

On the epiglottis I have watched a similar process. It becomes thickened and irregular along its free border with slightly raised pale or greyish-red eminences. These we may observe to become white at their apices, a slough forming, which on separating leaves a small ulcer, with sloping edges and greyish-yellow base, but without any surrounding hyperæmia or infiltration of its margin.

These ulcers are slow of healing, and as one cicatrises another nodule breaks down or is absorbed without ulcerating. In this way a worm-eaten appearance is given to the edge of the epiglottis, which is very characteristic of the disease.

As the process goes on the epiglottis becomes paler till it comes to have a dead-white colour, and to the probe is stiff, fibrous, and resistant. Sometimes its free border is eaten into irregularly, so as to leave in it a triangular deficiency, or the whole border may be destroyed, as if cut across. If we are able to watch a case progressing as I have described, I think it is so entirely different from the active destruction which takes place in syphilis as to prevent any mistake in diagnosis. The laryngoscopic appearances, in fact, are far more allied, as Lennox Browne remarks, to tubercular disease than to syphilis, and yet the absence of cough, pain, emaciation, fever, etc., make the differential diagnosis from laryngeal phthisis very easy.

With regard to the painlessness of the ulceration, though this is the rule, there are exceptions to it. In one of Leffert's cases there was marked dysphagia, and in one of my own, where ulceration of the pharynx and epiglottis had proceeded painlessly, there was a considerable degree of pain on swallowing, while an ulcer on the summit of the right arytenoid remained unhealed.

In the vast majority of cases, however, the painlessness of the ulceration in lupus is a very striking feature.

In syphilis we often find extensive ulceration with comparatively little

pain, but never in my experience is it so completely absent as in lupus, where the patient seldom knows of the existence of the disease until it interferes with voice production.

The cicatrices of lupus are in no way characteristic of the disease, and from them alone I do not think a diagnosis can be made with certainty. The recurrence of ulceration in them, however, as Chiari first pointed out, is pathognomonic of lupus.

Lennox Browne has advanced, as distinguishing syphilis from lupus of the soft palate, that the latter always attacks the buccal surface, and the former the nasal.

In one of my cases, however, along with lupus of the nose, there was on the upper surface of the soft palate a mass of nodular, or warty-looking tissue, which blocked the choanæ, and hid more than half of the septum. Of course, this may have been adenoid tissue, as there was no ulceration present; but beyond the fact that there were no vegetations on the vault, and that the whole pharynx was atrophic, is to be noted that an exactly similar condition is described by Chiari as occurring in one of his cases.

The limitation of lupus to the supra-glottic region has been suggested as distinguishing it from syphilis, but no great reliance must be placed upon this, for the invasion of the true cords is only a question of time and the severity of the case.

Do not think they possess any immunity from attacks of lupus, but that as the disease always begins in the epiglottis or ary-epiglottic folds, and only extends very slowly, the true cords are not involved till the disease has lasted for some time. When the disease extends to the interior of the larynx, it possesses the same characters as in the epiglottis. Irregular nodules are seen on the arytenoids, vocal bands and true cords, which undergo the same changes as we have already described.

The presence or absence of necrosis of bone has been termed "the crucial test" to differentiate syphilis from lupus, but many cases are on record in which necrosis of bone has occurred in undoubted lupus. I shall describe one such case later, which came under my own observation, in which lupus of the nose led to partial destruction of the nasal bones. In these cases, however, one must not forget the possibility of the syphilitic and tubercular taints being combined in the same patient.

Stenosis of the larynx only rarely results from lupus, and may be due to blocking of the larynx by lupoid tissue, to fixation of the vocal cords, or to the contractions resulting from cicatrization. It is much less frequently met with than in syphilis, in fact it is remarkable how seldom tracheotomy is required in lupus. Schroetter, with his very large experience, says he has never seen a case requiring it, and the number of recorded cases is very small. Acute œdema may also give rise to dangerous laryngeal obstruction, but this must be extremely rare, as I have only met with one recorded case. (Dr. C. H. Paul quoted by Marty).

I need hardly refer to the value of anti-syphilitic treatment in aiding diagnosis in a doubtful case. Such treatment will always exercise an unfavourable influence on lupus, unless there be also present a specific taint. At the same time we must not forget that sometimes a syphilitic lesion does not yield to specific treatment.

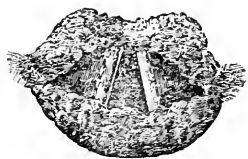
Is there a danger of lupus of the throat ending in pulmonary or general tuberculosis? This is a question to which little or no attention has been given in this country, and yet it is of the greatest importance in determining the prognosis of a case of lupus. The experiments of Koch, Cornil, and Leloir, Max Schüller, and others, have shown that general tuberculosis follows upon inoculations with the lupus bacillus. Numerous clinical observations, also, show how lupus may develop around fistule connected with tuberculosis joints or glands. Again, the coincidence of tubercular affections with external lupus is very striking in the light of recent statistics. Out of four hundred and eight lupus patients, no less than 67.9 per cent. were found to suffer from some other tubercular affection (Baumgarten, *Jahrsbericht über Mikro-organismen*, 1886). In thirty-eight patients, Besnier found pulmonary phthisis in eight, and Prof. Leloir, of Lille, on examining seventeen lupus patients detected signs of bacillary phthisis in no less than ten. Certainly there is no such frequent coincidence of the two diseases in this country.

I am not aware of any observations showing the liability of lupus of the mucous membranes to result in pulmonary or general tuberculosis. It is a subject which still requires to be worked out. French writers, however, seem to be much more impressed with the danger of such an issue than we are, and regard pulmonary phthisis as a common termination of lupus of the larynx. Recently I had an opportunity of observing a case in which general tuberculosis followed upon lupus of the face and tongue, which I shall relate at the conclusion of this paper.

With regard to treatment I have nothing new to bring before you. The methods of treatment are the same for lupus of the throat as of the skin. Scraping, scarifications, and the electric cautery are most efficacious in the severer forms, but the milder escharotics, nitrate of silver, chromic and lactic acids, are sufficient in a large proportion of cases to arrest the process, at least for a time. Mandl's solution of iodine has a favourable influence in the nodular thickenings of the larynx, but still better is scarification, with rubbing in of lactic acid, as in laryngeal tuberculosis. In some cases where ulceration is present, especially if accompanied with pain, insufflations of iodol or iodoform gives the best results. Tracheotomy, in the few cases in which it has been necessary, has always had a favourable influence on the progress of the disease. Dilatation, by means of Schroetter's bougies, was sufficient in a case related by Ganghofner to avert tracheotomy. In conclusion, I will describe briefly a few cases which have come under my observation recently, and which have been referred to in the foregoing paper:—

CASE I.—E. W., aged nineteen, came under my care six months ago, complaining of hoarseness and slight pain on swallowing. She was a healthy-looking and well-nourished girl, though of pale complexion. Symptoms had been present for two or three months before I saw her. On examination, the mucous membrane of the pharynx and larynx was seen to be abnormally pale, and so insensitive that the larynx could be probed without causing reflex disturbance. The uvula and soft palate were intact. The whole of the posterior wall of the pharynx was occupied by small cicatrices with projections of granulation-like tissue here and there, but there was no active ulceration except in the naso-pharynx, where there

was a superficial ulcer on the posterior wall about the size of a threepenny piece. The epiglottis was thickened—stiff, nodular along its free border—with small cicatrices between the nodules, of pale colour, and appeared about half its normal size. There was no ulceration to be detected at that time. Within the larynx there was thickening of a nodular character, involving the ary-epiglottic folds—the false cords—and the inter-arytenoid space. The vocal cords were normal in appearance, but their approximation was prevented by the inter-arytenoid thickening. There was no lupus of the skin. The teeth were exceptionally healthy, and there were no other evidences of hereditary syphilis. Mr. Reginald Harrison, who sent the case to me, had come to the conclusion that the case was not syphilitic, and the most careful inquiries into the family history failed to show any evidence of hereditary taint. From the cases of lupus of the larynx I had seen previously I diagnosed this as such, and the subsequent history of the case abundantly justified this opinion.



During the past six months I have watched this case, and seen several of the nodules along the edge of the epiglottis break down, forming shallow, sluggish ulcers, which healed slowly, leaving small cicatrices. One also found on the summit of the right arytenoid, about the size of a split-pea, and while it remained unhealed gave rise to considerable pain on swallowing. Iodol and morphia insufflations were most effective while ulceration was present, and the nodular condition of the larynx improved under brushings with Mandl's solution, the voice becoming much clearer. This patient is still under my care, as she returns every few weeks with fresh ulceration of the epiglottis.

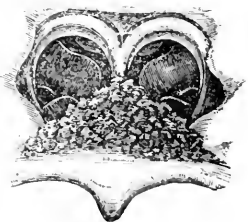
Of course, this patient had the benefit of the doubt, and was treated with iodide and mercury for some weeks. This treatment, she declared, made the pain on swallowing worse, and certainly did not cause healing of the ulceration.

The lungs, I should mention, are quite healthy, and there are no bacilli in the sputum.

CASE II.—T. R., aged eleven, had had lupus of the nose for two years, with destruction of the cartilaginous septum and anterior ends of the lower turbinates. Examination of pharynx showed great thickening of the uvula with nodules along its right border and tip of a pinkish, grey colour, and a small superficial ulcer, with grey base, on its anterior surface. There was no pain. The mucous membrane was highly insensitive and decidedly anæmic.



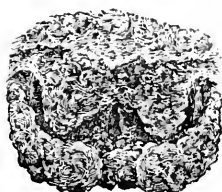
CASE III.—C. W., aged eleven, had lupus of the nose of some years duration; pharynx anæmic; very atrophic; and with reduced sensitiveness. On the posterior surface of the soft palate was a mass of granulation-like tissue, the colour of normal mucous membrane, which blocked the channel and hid the greater part of the septum. There was no ulceration.



CASE IV.—M. R., aged eight years, had suffered from lupus of the nose for over a year when she came under my notice. There was then a large ulcer on the bridge of the nose, exposing the nasal bones which were necrosed. The ulcer was surrounded by lupus

nodules. There was no history of syphilis nor any evidences of hereditary taint. The child was very delicate and ill-developed. The diagnosis of lupus was confirmed by a surgeon of large experience, who treated the case by scraping.

CASE V.—A. P., aged twelve. Lupus of the face for past two years. A year ago voice became husky and breathing slowly became more and more embarrassed. In January of this year breathing was so bad that the patient was admitted to a children's infirmary and tracheotomy performed. Examination showed absence of the uvula, and the whole arch of the soft palate together with the tonsils and base of tongue, was cicatricial. The epiglottis was greatly thickened and nodular of a pale pink colour, with a considerable deficiency in the middle of its free border. The arytenoids and inter-arytenoid space and false cords were greatly thickened and studded with irregular nodules which entirely hid the true cords.



CASE VI.—S. M., aged seven years. Had suffered from lupus of the face—both cheeks—for 16 months, when she was admitted to the Children's Hospital three months ago. She then had an ulcer on the tip of the tongue, deep, irregular, and quite painless. The parents were quite unaware of this ulcer being present till it was discovered by accident on asking the child to show her tongue. The ulcer was scraped and examined for bacilli, but none were found. Six weeks after admission the child died from acute miliary tuberculosis.

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NOTE ON A CASE OF SYPHILIS IMITATING LUPUS.

By R. NORRIS WOLFENDEN, M.D., Cantab.,
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How closely syphilis may imitate the most varied conditions, especially amongst the dermatoses, is well known to dermatologists. A syphilitic lupus, or lupiform syphilis, has been described, and the case of which I append the notes was of this character. It forms a useful addendum to Dr. Hunt's very interesting paper.

M. S., a married woman aged forty-one, came to me at the Throat Hospital on February 26, 1889, presenting the following appearance:— Upon the right ala nasi and tip of the nose were nine pink gelatinous soft tubercles, the one on the tip being the largest. These tubercles were semi-confluent, elastic to touch, and soft, unaccompanied by any pain, and, in fact, rather anæsthetic. Just below the septum, and extending to the upper lip, and almost in the middle line, was a large tubercle, ulcerated and covered with a dark crust, which, when removed, exposed an ulcer with raised and thickened edges. On the right side of the upper lip were three other smaller tubercles, arranged concentrically, and outside the left angle of the mouth was another small tubercle.

These various tubercles presented the typical "apple jelly" appearance of lupus, were soft and elastic, and without any appearance of scaling. In addition to this condition of the exterior of the nose, there was a slight degree of ulceration of the septum internally, with a foul-smelling discharge. The right and left edges of the epiglottis were thickened and eroded, and in front of the right arytenoid cartilage and in the inter-arytenoid space were pale elevations, seated on a thickened base, bearing a strong resemblance to lupus nodules of these regions.

The woman was out of health, and had been losing flesh latterly. On enquiring into the history and further examining the patient, it was clear that she had been infected with syphilis, and bore distinct signs of its activity elsewhere.

The patient was married two years ago, and three months later had a miscarriage. Nine months later a healthy male child was born, which has apparently remained in good health ever since. The evidences of syphilis on the patient's body were conclusive. On the back between the shoulders, on the arms and forearms, on both thighs, and the scalp, were bluish-white scars, or spots which had been attacked in apparently the same manner as the nose was now affected. Tubercles had first formed, they had afterwards ulcerated, then cicatrised. The throat had afterwards been affected, but all we could learn was that it had been ulcerated, and had healed under treatment. The uvula, however, had disappeared completely. A slight amount of pain had accompanied the development of the tubercles. On the cheek, arms, and body, were coppery, scaly patches still existent. On the scalp was a deep, round, crateriform ulcer.

I mention the case, not on account of its rarity, for probably such cases are not unfrequently met with by dermatologists, but for the purpose of emphasising the fact how closely syphilis may imitate lupus, a fact which has been frequently drawn attention to by Jonathan Hutchinson and others. In this case the ulceration and foul-smelling discharge, the presence of numerous patches of the same character on different parts of the body, and the history of the case, left no doubt as to its true character.

The characters insisted upon by Tilbury Fox as aiding diagnosis were: In syphilis the tubercles are larger, rounder, harder, and copper-coloured; there is no great tendency to desquamate, but a great tendency to suppuration and ulceration. They are found in various parts of the body at the same time. Ulcers, when they occur, have sharp cut edges, are foul, dirty, ashy with ichor, and the tissues round are infiltrated and indurated. In lupus the tubercles are softer, more vascular, and gelatinous. There is not the same tendency to ulceration or crusting; when ulcers occur the edges are not sharply cut, but thickened and rounded, clean and dry, and the edges are non-everted.

The condition of the laryngeal mucous membrane (except for the ulcerated edge of the epiglottis) strikingly resembled what I have seen in true lupus of these regions, and it is well to remember how closely syphilis may imitate true lupus. The case in question bore such strong superficial resemblance to lupus that some who saw it were deceived.

Under large doses of iodide of potash, and the local use of a strong iodoform ointment (5i. and ʒi.) the patient made gradual improvement, but the gelatinous tubercles on the side of the nose proved rather resistant. They, however, began to diminish in size after deep scarification and rubbing in of lactic acid.

A CASE OF FRACTURE OF THE LARYNX¹

With Successful Termination.

By DR. ALFRED SOKOLOWSKI,

Physician to the Hospital of the Holy Ghost, Warsaw.

THIS case, observed by me for a long time, together with Dr. Bukowski, surgeon to the Hospital of the Holy Ghost, deserves to be reported (1) on account of the rarity of such cases, which interest not only laryngologists, but general surgeons; the more so, that this case, in spite of several complications, has terminated successfully; (2) because directly after the fracture of the larynx, and during the whole time of observation, frequent laryngoscopic examinations were performed, permitting us to observe certain very interesting and characteristic details.

The patient was a girl, aged twenty, whose apron was caught, at the beginning of January, 1888, by a reaping machine. This apron was worn on her back, and tied in a knot over the front of the neck (according to

¹ A paper read before the Medical Society of Warsaw, March 18, 1889.

local custom). She suddenly felt severe pain in the neighbourhood of the larynx, and great dyspnœa, and soon after there appeared violent choking cough, with expectoration of a great quantity of blood, lasting for several hours. On the same day, at night, the patient was brought six miles to Warsaw—to our hospital—where next morning, after precise examination with Dr. Bukowski, I found the patient in the following condition :—

She was well-built, presenting in the face the picture of considerable cyanosis and œdema ; great dyspnœa ; breathing interrupted by violent, choking cough ; voice quite hoarse ; no fever. She was quite conscious, and, with great difficulty (on account of constant cough, and although with distinct whisper), she related to us the above-mentioned facts. The cough was accompanied by abundant expectoration of purulent character ; the whole neck is greatly swollen, and, on palpation, we note everywhere the presence of air (crepitatio subcutanea). On examination of the neighbourhood of the larynx, we feel, at the left thyroid cartilage, a distinct furrow, going straight downwards ; but, on deeper palpation, the patient feels violent pain, and distinct crepitation is also obtained. The right thyroid and cricoid cartilages, as well as the hyoid bone in their front part, seemed to be unchanged, the great swelling of the skin preventing thorough examination. In the chest, no signs could be found of pulmonary complication, the respiration being quite good.

Although the above examination proved distinctly the cause of the condition, *i.e.*, fracture of the larynx, we, notwithstanding, resolved, if possible, to examine the interior of the larynx by means of the mirror. The examination, performed with great difficulty, gave us the following results :—

The epiglottis was slightly swollen and red ; below, we could see two thick, red swellings, answering to the superior edges of the thyroid cartilage, placed in a direction corresponding to the ventricular bands ; these swellings filled the whole interior of the larynx ; the left swelling was much thicker than the right one. It was impossible to see the posterior part. This confirmed our external examination ; the above swellings I considered to be the upper portions of the thyroid cartilage, fractured and pushed into the larynx. What, however, had happened to the posterior wall of the larynx, *i.e.*, the posterior part of the cricoid cartilage, it was difficult to determine, on account of the difficulty of laryngoscopic examination. From the diagnosis of fracture of the larynx, and the presence of great dyspnœa, accompanied with cyanosis, immediate tracheotomy was indicated, which was performed by Dr. Bukowski. On section of the skin and soft parts at the spot answering to the inferior angle of the thyroid cartilage, the aperture proved to result from the crushing of the latter, and of the anterior part of the cricoid cartilage, and went directly into the larynx. This opening was made a little wider downwards, and a thick tracheotomy tube was easily introduced. In this manner, instead of the projected tracheotomy, laryngotomy was performed. During the operation, two uneven pieces of cartilages escaped about the size of a pea.

The patient began to breathe freely after the operation. The course

of the case did not exhibit anything extraordinary. During the three first days there was slight fever (38·5 per cent. C.). The cough remained, and the expectoration of purulent sputa, which, during the next two weeks, began to exhibit a fœtid character, and every few days the sputum began to show small pieces of necrotic cartilage. During the fourth week the cough quite ceased, and the sputum entirely lost its fœtid character. The breathing was permanently free, and we tried to close the wound and remove the tube, but after a few hours dyspnoea constantly appeared, and we were obliged to replace the tube. The general state of the patient was always excellent. At the end of four weeks after operation we were able to examine the patient precisely with the laryngoscopic mirror. The laryngoscopic appearance was as follows:—The epiglottis unchanged, below—two thick swellings were seen, answering to the direction of ventricular bands. On deep inspiration these swellings did not meet at the anterior angle, but left a more or less triangular dark furrow. These swellings were movable and approached on phonation, entirely covering the laryngeal interior. On deep inspiration below these swellings, especially on the right side, the vocal cords were seen indistinctly of almost white colour, with slightly uneven surface. The direction of the ary-epiglottic folds, their epiglottic portions being very indistinct, seemed to be so changed that these folds did not pass obliquely from the out to the inside, but almost perpendicularly from front to back, and from above downwards, rather markedly. The cause of this change of direction in the folds was due to the fact that neither cartilage of Santorini was in its proper place, but both were drawn aside, so that the space between them was double the usual distance. These cartilages on phonation also performed movements to the inside, yet never approached each other completely, leaving a large space—about two centimètres and a half wide. As to the posterior region of the larynx, namely, the inter-arytenoid space (so-called rimula), it was at first very slightly congested, especially in comparison with the colour of the ventricular bands—it was movable on phonation, and near the left side it formed a perpendicular fissure. The space between the level of the posterior part of the larynx and the ventricular bands, and between Santorini's cartilages, is remarkably deepened, seeming to be on an inferior level.

The laryngeal aperture was rhombic in form, and about one centimètre in diameter; the trachea was quite invisible. These appearances we explained in the following manner:—The swellings, according to their direction and movement during phonation, we considered to be thickened ventricular bands, pushed into the larynx by infraction of the thyroid cartilage—the dark furrow in their anterior angle we considered to be partial deficiencies of the middle part (lamina) of the thyroid cartilage (proved during tracheotomy). Below them, probably, were the vocal cords, of which small parts were seen with the laryngoscope. But we could not understand at all the position of the posterior wall, lying deep, and forming the small opening or entrance to the larynx. In order to determine the size and width of this opening, we introduced Schrötter's dilating tubes of different size, and even No. 7 passed easily. After having, however, taken out the tubes, the aperture closed again, showing

its original form and size. This laryngoscopic appearance remained constant during the two next months. The patient felt quite well, breathing through the tube quite freely, but endeavours to remove the tube were without success. On considering this case I came to the conclusion that perhaps we had besides fracture of the thyroid cartilage, a fracture of the posterior part of the cricoid cartilage, and that this indistinct posterior wall was a purse of mucous membrane left after the extrusion of necrotic portions of cartilage, and it was also probable that the rest of them remained still in it, producing in this manner the symptoms of stenosis. We thought then that it would be the best to incise the thyroid cartilage upwards, *i.e.*, to complete the laryngo-fissure already partially performed, and after having convinced ourselves of the real condition, to act further according to the information obtained. Dr. Bukowski entirely agreeing with this opinion, performed laryngo-fissure in the beginning of April.

After having chloroformed the patient, and cut upwards from the tube to the thyroid membrane, and having opened out these parts by means of dilators, we determined that the posterior wall of the larynx, *i.e.*, the posterior part of the cricoid cartilage, was entirely absent, and that what we supposed to be the posterior wall of the larynx was really the anterior wall of the pharynx (its inferior part), of which we could readily convince ourselves by introducing œsophageal bougies. The thickened swellings were, as laryngoscopically proved, thickened ventricular bands. Laryngo-fissure gave us accurate diagnosis of the endo-laryngeal condition. Surgical intervention was superfluous; the external wound was, therefore, stitched, and the tracheal tube was left in. The operation was not followed by any complications, and the patient, feeling quite well, was discharged at the end of June.

During these three months the laryngeal aperture remained constantly without change, and removal of the tube, attempted several times, was followed by dyspnœa after a few hours, so that we were obliged to leave it in permanently.

The patient came again to the hospital at the end of January of this year (1889). The laryngoscopic appearance was exactly the same as before. After removal of the tracheotomy tube the aperture could be well seen; it was situated in the middle of the thyroid cartilage, just below these thickened ventricular bands, which were quite visible, touching each other on phonation. The vocal cords were invisible. We could see very well the anterior wall of the pharynx at the place answering to the destroyed posterior region of the larynx (cartilaginous portion), which we could further determine by introducing bougies into the œsophagus. Pushing down this wall by means of the finger introduced through the external aperture, we could distinctly feel the bougie. The patient now breathed freely, even with closed tube. Believing that we could remove the tube, we stopped it with cork. The tube has been until now, *i.e.*, about three weeks, constantly closed, and the patient breathes quite freely. I hope, therefore, that we shall soon be able to take out the tube.¹

¹ Some days after showing the patient at the Medical Society, I took out the tube, but after a few days dyspnœa began to appear, which obliged me to insert the tube again, with which the patient soon left the hospital.

I must add that, except for a few days after the operation of laryngofissure, the patient during the whole time swallowed quite well.

Fractures of the larynx are rare. They have only been precisely known since the time of Morgagni, who first described a case. Several cases were incompletely reported by Malgaigne, Cavasse, etc. Gurlt first gave an accurate description of the condition, basing his observations upon forty-three cases, collected from all sources, and upon his own experiments. (See his essay on Fractures of the Bones—"Handbuch der Lehre von den Knochenbrüchen," second part, p. 317, 1884.) This work, although relatively very incomplete, is so well written, that it is really almost the only source from whence, as we were able to convince ourselves later, authors in their manuals of surgery and laryngology have borrowed their descriptions. These, indeed, are only the abstracts of Gurlt's work (Henoque, Duplay and Follin, G. Fischer, Mackenzie, Solis-Cohen, etc.).

Cases of fracture of the larynx are very rare. Gurlt could only find forty-three recorded cases. The cases recorded up to the year 1881 were collected by G. Fischer (*Deutsche Chirurgie*, Lieferung 44, p. 79), and these, together with Gurlt's cases, make a total of seventy-five. Several cases were published between 1881 and 1884 (Mackenzie, Roc-Soyons). Since 1884 we find only four cases reported (Knaggs, Schottok, Lane, and Besner). We find, therefore, not more than eighty or ninety cases recorded in all, a fact which indicates the rarity of the above condition.

Rare, however, clinically, it seems to be otherwise anatomico-pathologically, since Arbuthnot Lane, of London, in a paper read before the Pathological Society of London (*Brit. Med. Journal*, 1885), endeavoured to prove the frequency at autopsies of fractures of the larynx and hyoid bone. Out of a hundred cadavers he found fractures in nine cases.

The paper gave origin to an animated discussion, the result of which was the election of a committee, composed of several members, who, after having examined Lane's specimens, reported in confirmation of the author's opinion, *i.e.*, that fractures of the hyoid bone and thyroid cartilage appear much more frequently than was hitherto supposed, and that these traumata, generally during life, gave rise to such slight symptoms, that they were not easily determined. A similar opinion was also expressed by the forensic physician, Th. Patenko ("Vierteljahrsschrift für gerichtliche Medicin," Band 41, 1889). This physician, basing his conclusions upon precise anatomico-pathological experiments and observations, convinced himself that in forensic medical practice, fractures of the larynx are met with relatively frequently, and that favourable conditions for their production were ossification of certain or all of the cartilages of the larynx. More or less similar results were arrived at by the well-known physician, Prof. Hofmann, of Vienna (*Zur Kenntniss der Entstehungsarten von Kehlkopfsfracturen—Wiener Medicinische Wissenschaft*, No. 44 and 45, 1886). He affirms that the most common cause of such fractures is, besides hanging, strangulation by the hand, and other indirect causes, such as cutting the neck by rather sharp instruments, and falls on the head from a considerable height. As to the mechanism of fractures of the larynx, Gurlt distinguishes two principal factors. Either the

compression acts from both sides upon the larynx (strangulation), normal flexions of the thyroid cartilage increasing to such a degree, that the lateral walls of the larynx nearly meet, and at the same time the arytenoid cartilages become flattened ; or, the thyroid cartilage is afflated from front to back, pressed against the vertebral column, and at the same time the cricoid cartilage becomes flattened from front to back. Each of the above mechanisms shows a different picture of changes. In case of double compression of the larynx, we find it principally in the form of oblong fracture of the thyroid cartilage—the tearing off sometimes of the whole half of this cartilage, and in case of simultaneous injury to the cricoid cartilage, there is double fracture, *i.e.*, one on each side, or a middle one in the anterior part of the cricoid cartilage. As to the mechanism of the second kind, namely, crushing of the larynx from front to back, the fractures vary. Besides oblong and oblique fractures of the thyroid cartilage, and double fracture of the cricoid cartilage, there are sometimes numerous fractures with crushing of certain cartilages ; sometimes there also occurs fracture of the great horns of the thyroid cartilage, as well as luxations of the aryteno-cricoid articulations, and even tearing off of the crico-thyroid membrane. This latter mechanism entirely applies to our case, since, after a violent, sudden pull from front to the back, and compression of the larynx against the vertebral column, there occurred oblique fracture with separation of the left part of the thyroid cartilage, at the same time almost completely crushing the cricoid cartilage with luxation of both crico-arytenoid articulations. As to the cause : the most frequent is, as I have already mentioned—strangulation ; next crushing of the neck by running over it ; strong compression of the neck ; in the insane from putting on too tight a jacket (*Zwangsjacke*) ; falls from a considerable height ; a strong blow in the neighbourhood of the larynx (for instance by a horse's hoof) ; and lastly, one author (*Beigel*, cited by *Fischer*) reports, that from too violent an effort of vocalisation both vocal cords were torn off from the place of their insertion. As to the frequency of fracture of different parts of the larynx, *Fischer* reports as follows :—

In seventy-five cases fracture occurred—

1. Of the thyroid	cartilage,	twenty-nine times.
2. " cricoid	"	eleven "
3. " thyroid and cricoid	"	nine "
4. " hyoid bone and thyroid	"	three "
5. " " " thyroid and cricoid	"	twice
6. " " " " trachea	"	once
7. " thyroid, cricoid	" "	three times.
8. " " and trachea	"	once
9. " cricoid " "	"	twice
10. Of all parts of the larynx	"	fourteen times.

The symptoms of fracture are generally very acute. There appears early great cyanosis and dyspnoea, small pulse, and great anxiety. The patient abundantly expectorates strumous, bloody sputa, with constant tormenting cough. The voice is extremely hoarse, or there is entire aphonia. Speaking and swallowing cause great pain. At the same time, there generally appears subcutaneous emphysema of the neck, sometimes

spreading over the whole body. Later on, in certain cases (as in ours), expectoration of purulent, very fetid sputa, occurs, depending upon the extrusion of necrotic cartilages. There are cases, however, where these threatening symptoms are absent, and in which slight hoarseness occurs, and palpation only reveals the presence of the fracture. By means of objective examination of the neighbourhood of the larynx, crepitation or single pieces of the larynx are felt under the fingers, at the same time by palpating individual cartilages of the larynx, their uncommon mobility, especially downwards, is felt. Examination by means of laryngoscopic mirror is seldom performed. Schrötter (*Laryngologische Mittheilung*, 1875) reports that he saw, on the second day after fracture of the larynx, dark "sugillation" of blood, commencing in the right vallecula and spreading to the free edge of the epiglottis, ary-epiglottic fold, and to the opposite arytenoid cartilage; all these parts were greatly swollen, from which the laryngeal aperture was greatly diminished. Inside the larynx the sugillation spread from the epiglottis through the right half of the posterior region to the left lateral wall; both cords were moderately reddened and swollen.

Mackenzie, describing one case of fracture of the middle of the thyroid cartilage, reports that the laryngoscopic examination showed only great swelling and reddening of the epiglottis.

In our case, where we were able to precisely examine the larynx the next day after the fracture, the laryngoscopic appearance has been described above.

The prognosis, in cases of fracture of the larynx, is very bad. As to this, all authors agree. Of seventy-one cases, cited by Fischer, death ensued in fifty-six. It seems to be especially bad in fracture of the cricoid cartilage. Of twenty-eight such cases, collected by Durham (Solis-Cohen, *Encyclopædie Internationale de Chirurgie*, VI., p. 42), all ended fatally. Fischer is of the same opinion.

Our case does not uphold this view, and I have found recorded still another analogous case with successful result, published by Treulich, in 1876 (see report in *Centralblatt für Chirurgie*, p. 14, 1876). A countryman, aged thirty-eight, had his neck seized by a horse's teeth, and severely bitten. At the same time, he was lifted up, and severely shaken. He lost consciousness, and, on recovery of his senses, could neither speak nor swallow. On account of great dyspnoea, the author performed tracheotomy, and found a large aperture between the thyroid and cricoid cartilages, and the conoid ligament was torn. The cricoid cartilage was broken in two places, and the middle anterior portion of the cartilage was entirely separated. The left half of the thyroid cartilage was also broken; the windpipe was diagonally separated, so that between it and the larynx there was a space one centimètre long. Into the opening of the conoid ligament, the author inserted the tracheotomy tube. The patient had slight fever, and afterwards necrosed parts of the thyroid and cricoid cartilages were expelled. After three months and a half, the patient entirely recovered. The thyroid cartilage remained greatly asymmetrical; the mucous membrane of the larynx was very red and thick, as well as that of the vocal cords; the voice remained very hoarse, but the breathing free.

As to treatment : although a successful result is rare, all authors agree that in every case of extensive fracture of the larynx, accompanied with dyspnœa, we must immediately perform tracheotomy. Of sixteen cases of recovery, recorded by Durham, tracheotomy was performed in nine. Solis-Cohen, justly indeed, says that it is better to perform tracheotomy when it seems to be unnecessary, than to permit exitus letalis without undertaking it. After tracheotomy, we must endeavour to join the broken parts, and for this purpose we must, if necessary, cut the crico-thyroid membrane, and set the broken parts by means of a catheter or the finger. If the fractured portions of the thyroid cartilage do not meet well, we must extirpate them.

A more precise description of the surgical treatment of these cases will, however, be found in surgical manuals.

THERAPEUTICS, DIPHTHERIA, &c.

HINDE, A. (Chicago).—A New Palate Retractor. *Med. Record*, March 30, 1889.

THE instrument consists of a handle, three inches long, with a shaft five inches in length, terminating in an equilateral triangle, each side of which is half an inch long. This triangular portion is bent in the shaft at an angle of 75° to 80°.

R. Norris Wolfenden.

OSBORNE, J. D. (Newark).—A Tongue Depressor and Insufflator. *Med. Record*, March 30, 1889.

THE instrument consists of a tube, eight or ten inches long, having attached to it an inverted spoon-shaped depressor bent in itself. The end of the tube covering the spoon is flattened and depressed in the centre, for the purpose of scattering the powder laterally on the tonsils and fauces. Any atomiser with projecting point will also throw a spray through it.

R. Norris Wolfenden.

SENATOR (Berlin).—A Dilator for Treatment of Strictures of the Œsophagus. *Deutsche Med. Wochenschr.*, 1889, No. 28.

THE author has used sounds, on which are fixed pieces of laminaria. This is introduced in the stricture, and swells there. As the author has only treated carcinomatous strictures thus, he has only had palliative success, but there is no doubt that cicatricial strictures can be really cured by this method.

Michael.

BABER, E. CRESWELL (Brighton).—A Recent Improvement in Posterior Rhinoscopy. *British Medical Journal*, January 12, 1889.

THIS consists in the use of a self-restraining palate-retractor, invented

by Dr. J. A. White, U.S.A., and modified by the author. It may be had from Messrs. Down Brothers, Borough, London, S.E.

Hunter Mackenzie.

DROZ, L.—On Cocaine. *Rev. Méd. de la Suisse Romande, June, 1889.*

LÉRINE, of Lyons, has recorded (*Semaine Médicale*, 22nd May, 1889) a large number of cases of cocaine intoxication. Six centigrammes have sufficed to provoke accidents in an adult, and a dose of 0·02 gramme has produced asphyxia in an infant. The dose of 0·13 centigrammes has not been exceeded for subcutaneous injection, except in a case of Ricci's, in which 1·25 grammes was injected accidentally. The dose absorbed after swabbings is generally less than 0·06. In a case of sinus, a patient injected with 0·80 of cocaine, died within twenty minutes; and in a second case, 0·65 grammes of cocaine, in 16 grammes of water, was injected into the urethra. The author cites a case of a student who injected into his urethra a solution of cocaine of the strength of 1 gramme in 20 grammes of water. He made further experiments upon himself by injecting about 0·05 grammes of cocaine, every quarter or half-hour. About 75 grammes was the total amount absorbed from the urethral mucous membrane within three hours and twenty-two minutes, and was followed by negative results. In a second experiment he used a solution of 1 gramme in 15 grammes of water. After absorption of '85 grammes, general analgesia became complete, trismus and Cheyne Stokes' respiration supervened, with agonising dyspnoea; somnolence, with sudden re-awakening; convulsive movements in the limbs, etc. The symptoms were relieved at once by inhalations of nitrate of amyl and strong coffee. Trismus and Cheyne Stokes' respiration have not previously been mentioned in connection with cocaine.

R. Norris Wolfenden.

MERMOD.—The Larynx and Cocaine. *Rev. Méd. de la Suisse Romande, June, 1889.*

EVEN before the publication of Heryng's work, the author had treated many cases of laryngeal tuberculosis by curetting and subsequent cauterisation. He has also applied electrolysis, by means of a long curved needle, which is made to rest upon the ulcerated surface, cocaine being previously applied. Spasm of the glottis is overcome by Schroetter's sounds. In order to obtain rapid and complete anæsthesia, solutions of 20 to 25 per cent. cocaine are necessary, making several successive applications at intervals of a minute or two. The dose has to be often increased, and the author has used as much as a gramme of cocaine (15 grains) in a patient who at first was anæsthetised with 20 centigrammes. Solutions of 10 per cent., or less, suffice to relieve pain, and may be used to allay the painful deglutition of phthisical patients. Sub-mucous injections of cocaine permit much more accurate localisation of the anæsthesia, and a smaller quantity of cocaine is required (6 centigrammes). According to Vian and Heryng, the cocaine solution ought to contain 2 per cent. carbolic acid, in order to prevent signs of intoxication. Cocaine does not make the anæsthesia so perfect that endolaryngeal operations can be undertaken by any but those skilled in their

376 *The Journal of Laryngology and Rhinology.*

performance. It does not remove fear from the patient, and, especially when applied in swabbings, its effect is not always certain, and it does not suppress the reflexes in many subjects.

R. Norris Wolfenden.

KOEHLER, F. W. (Louisville).—**Creolin in the Local Prevention and Curative Treatment of Infectious Throat Diseases.** *Med. Record*, January 19, 1889.

THE author uses it as a gargle, and in infectious troubles puts all the members of the household upon the creolin treatment, thus preventing the spread of diphtheritic sore throats. He recommends it for the treatment of diphtheria. One or two per cent. solutions of creolin are potent germicides.

R. Norris Wolfenden.

YEO, J. BURNEY (London).—**Grasse, Alpes, Maritimes, as a Health Resort.** *British Medical Journal*, January 12, 1889.

THE town of Grasse is situated about ten miles to the north of Cannes, at an elevation of about 1000 feet above the sea. The climate is stated to be suitable for those pulmonary or nervous invalids who are better in a dry, bracing air, than in a moist, relaxing one, for certain asthmatics, and for those who suffer from sleeplessness, loss of appetite, and nervous irritability when living on the coast, and for many who cannot bear the glare of the sun on the sea.

Hunter Mackenzie.

SQUIRE, J. E.—**The Prevention of Phthisis.** *British Medical Journal*, January 26, 1889. (A Paper read before the Epidemiological Society of London, January 9, 1889.)

THIS communication had reference to overcrowding, bad hygienic conditions, defective sanitary states, and other causes which are recognised as predisposing elements in the induction of tubercular disease.

Hunter Mackenzie.

PÜTIÄTIN, M. J. (Rybinsk).—**Critical Remarks on Various Methods of Treatment of Phthisis.** *Transactions of the Third General Meeting of Russian Medical Men at St. Petersburg*, No. 9, 1889, p. 292.

DR. PÜTIÄTIN lays down the following general propositions :—

1. There do not yet exist any specific remedies for pulmonary tuberculosis. Turpentine, and especially creasote, seem to give satisfactory results more often than any other means. Sometimes preparations of iodine prove useful, while mercurials remain mostly inactive.

2. At all events there cannot be possibly any definite routine therapeutic method equally suitable for one and all of the patients. The treatment should vary according to distinct indications and peculiarities of individual cases.

3. Sometimes good results are obtained from overfeeding, hence it is desirable that koumiss and kefir (as excellent dietetic articles) should find a possibly large application in (country) practice.

4. In view of the fact (1) that special climatic resorts are inaccessible (too expensive) for a vast majority of consumptive patients, and (2) that

cure can take place under most varying climatic conditions, it is necessary that in each and all of the Governments (*Gubernias*) of Russian Empire, the town and rural (*zemsky*) administrations should establish special curative institutions for consumptives. Until then the said corporations should keep special wards for the patients, set apart in existing general hospitals.

5. Both rest and exercise should occupy an important place in the therapeutics of phthisis, but their regulation should be invariably retained in the hands of the medical attendant.

6. The cardinal principle of social prophylactics against tuberculosis is constituted by all possible efforts directed against all social evils and unhealthy states of the air, soil, and drinking water.

7. The rational therapeutics and prophylaxis, as applied to tuberculosis, will lead at the same time to a steady decrease in general morbidity and mortality all over Russia.

Dr. Pütiatin's communication gave rise to a prolonged and interesting discussion, in the course of which Drs. A. S. Shtcherbakoff, of Rostov-on-Don, E. Gürin, of Bessarabia, N. A. Stroganoff, of Odessa, and Professors J. S. Kremiansky, of Kharkov, and Th. Th. Erismann, of Moscow, emphatically admitted the enormous importance of the subject brought forward by the author. Ultimately a resolution was proposed by Professor Erismann, and unanimously adopted by the meeting, to the effect that the question on "Individual and social struggles against tuberculosis in Russia" should be thoroughly considered by the Committee of the Fourth General Meeting (at Moscow), and that such measures should be taken as would secure an elaborate all-sided discussion enabling the future congress to adopt some practical steps.

Valerius Idelson.

VYSOKOVITCH, Professor V. K. (Kharkov).—On Rational Treatment of Pulmonary Phthisis. *Transactions of the Third General Meeting of Russian Medical Men at St. Petersburg, No. 6, 1889, p. 173.*

THE author does not entertain any doubt, (1) that consumption is an infectious disease, caused by Koch's tubercle bacillus, and (2) that the disease is curable. But he positively declines to believe that it can be cured by any bactericide remedies proposed almost daily, and supposed to be capable of destroying the microbes in the patient's system. Both the author's own, and Cornet's researches on the biological properties of the bacillus have justified the deduction that the means in question are utterly useless as direct tubercle destroyers. Possibly some of them may prove of service as means for increasing the patient's resistance towards the action of the microbe; but even that remains yet to be proved. Having lately visited Goerbersdorf (Dr. Brehmer's institution for consumptives), in Austrian Bohemia, Professor Vysokovitch has come to the conclusion that the only rational and more or less successful therapeutic method is constituted by a climatic treatment (including exercise), associated with over-feeding, as practised in the said locality. As to the struggle against consumption raging amongst poorer or working classes of the community, any good results can be secured only by a substantial improvement in the people's sanitary conditions, and by a simultaneous wide popularisation

378 *The Journal of Laryngology and Rhinology.*

of our knowledge concerning infection and effective means for its prevention.

Valerius Idelson.

GUYER (Zürich).—O'Dwyer's Intubation of the Larynx. *Corresp. Bl. für Schweizer Aerzte*, 1889, No. 7.

THE author agrees with the inventor that intubation must be looked upon as a very useful manipulation in many cases, and can often be performed in place of tracheotomy. He describes the operation, its dangers and applications. He has operated in twenty-seven cases of acute diphtheritic stenosis, and thirteen of those were cured. It is only applicable to asphyxic cases, which without its performance must have been tracheotomised. He has also applied it in cases of difficult *decanulement* after tracheotomy, and has so made it possible to remove the cannula. In an appendix Dr. v. Muralt, who had formerly written against the operation, now admits that by such successes he is convinced of its benefit.

Michael.

RANKE.—On Intubation of the Larynx. *Münchener Med. Wochenschr.*, 1889, Nos. 28, 29, 30.

THE author reviews the history of intubation, describes the instruments, and relates his own experiences with the method. He has performed the operation in forty-four cases. In fifteen cases of secondary diphtheria, following measles or scarlet fever, fourteen have died, and one was cured. In twenty-nine cases of primary diphtheritic stenosis, nine were cured. In two of the cured cases it was necessary to perform tracheotomy after intubation. Two cases of chronic laryngeal stenosis also were treated by intubation. One of them, a stenosis from granulations, is cured; the other, congenital papilloma, is improved, but cannot yet dispense with the tube. The author then speaks of the indications and contra-indications of the method, and gives a table of his forty-four cases.

Michael.

EICHBERG, I. (Cincinnati).—Intubation twice successfully performed in the same Patient. *Med. Record*, March 30, 1889.

THE patient was a little girl, four years of age, and she was first intubated for croup, the tube being kept *in situ* for eight days. A good recovery was made. Eleven months later the child had a second attack of croup, and intubation was again performed, and again a good recovery was made.

R. Norris Wolfenden.

ROUGE (Hungen).—Treatment of Diphtheria by Arrac. *Deutsche Med. Wochenschr.*, 1889, No. 29.

THE author has treated forty cases by the internal use of arrac with good results.

Michael.

HOLT, EMMETT.—Laryngeal Diphtheria without Loss of Voice. *N. Y. Med. Jour.*, January 19, 1889.

A CASE ending fatally, and recorded by the author at the New York Pathological Society (December 26, 1888). There had been no loss of

voice, no laryngeal dyspnoea, and nothing that would lead one to suspect croup, although false membrane extended over the epiglottis, larynx, and trachea. The membrane covering the cords and lower part of the larynx was thin and not very adherent, and it was loose in the trachea. No membrane was found in the lower trachea or large bronchi, but at the third and fourth subdivision it reappeared abundantly, but was present in the small bronchi only on the right side. The child died of bronchopneumonia on the sixth day. (Dr. Northrup mentioned that he had found the whole interior of the larynx, including the vocal cords, thickly coated with diphtheritic deposit, in a child, without giving rise during life to any symptoms of dyspnoea, cough, or altered voice.) R. Norris Wolfenden.

SCHÜTZE (Osnabrück). — Mania cured by Pharyngeal Diphtheria. *Arch. für Psychiat.*, 1888, *Heft* 1.

A PATIENT, twenty-seven years old, had a typical mania. Under the influence of an acute febrile pharyngeal diphtheria the mania was cured in a short time. Similar cures are often observed under the influence of acute febrile affections. Michael.

SCHÖNFELDT.—Multiple Sclerosis of the Brain and Medulla Spinalis in Children following Diphtheria, with description of two Cases. Inaugural Dissertation. *Berlin*.

VERY exact description of two cases. Michael.

SCHILLING (Nürnberg).—Treatment of Whooping Cough. *Münchener Med. Wochenschr.*, 1889, No. 29.

THE author has applied inhalations of chloroform with good results. Michael.

COOPER, C. H.—Scarlatina in its Relation to Cow's Milk at Wimbledon and Merton. *British Medical Journal*, January 12, 1889. (A Paper read before the Epidemiological Society of London, December 12, 1888).

Numerous attacks of scarlatina and sore throat were found to depend upon the supply of milk from cows which, on examination by Mr. Power, "appeared to be recovering from affections of the skin and udder very similar to the malady reported on by Dr. Klein, as having occurred "amongst certain cows at Hendon." Some interesting details regarding the outbreak are given. Hunter Mackenzie.

MOUTH, TONGUE, PHARYNX, &c.

PARKER, RUSHTON (Liverpool).—Case of Cheiloplasty. *Liverpool Medico-Chirurgical Journal*, July, 1889.

THE whole movable lower lip was removed for a large epithelioma, along with the sub-maxillary lymphatic glands. The plastic operation consisted

in dissecting a flap from the left side of the cheek and neck, having its base downwards, and placing it in the gap left at the mouth. Rapid healing resulted, with a good covering to the chin, rather pointed, and a somewhat contracted mouth, unobtrusive in appearance, and useful for eating and speaking.

R. Norris Wolfenden.

WHEELER (Dublin).—**Lingual Tumour.** *British Medical Journal*, February 2, 1889. (Specimen exhibited before the Royal Academy of Medicine in Ireland, January 11, 1889).

Hunter Mackenzie.

CORLEY (Dublin).—**Epithelioma of the Tongue.** *British Medical Journal*, February 2, 1889. (A paper read before the Royal Academy in Ireland, January 11, 1889).

IN the discussion which followed, Mr. Wheeler stated he was so convinced that syphilitic deposits were fertile sources of cancer, that he would excise all such in which the disease was of comparatively long standing. He believed that the change was due, not to local irritation, but to destruction of the tissues by the deposit.

Hunter Mackenzie.

BARLING (Birmingham).—**Nævus of the Tongue and Macroglossia.** *British Medical Journal*, February 2, 1889. (Exhibition of specimen before the Birmingham Branch of the British Medical Association, November 30, 1888).

THE specimen had been removed from an infant seven weeks old. The tongue was slit down the raphe to a little beyond its middle; a ligature, buried in the substance of the tongue, was there tied round the right half, and the diseased part removed with scissors: it was of the size of an ordinary walnut. The child recovered.

Hunter Mackenzie.

BULL, W. T. (New York).—**Case of Primary Tuberculosis of the Tongue. Presentation of the Patient Three Years after Total Extirpation by Kocher's Method.** *Med. Rec.*, January 19, 1889.

THE history of this patient was published by Bryson Delavan (*New York Med. Journal*, May 14, 1887), in his record on seven cases of buccal tuberculosis.

Three years ago extirpation of the tongue was performed for what was believed to be cancer. The patient, thirty years of age, had suffered from an ulcer of the base of the tongue for six months, with painful swallowing, and great salivation; the lungs and larynx were sound. A hard gland existed beneath the ramus of the jaw. The ulcer had an indurated edge and sloughing base. Since removal of the tongue, sub-maxillary, and sub-lingual glands, the patient has gained flesh and remained in robust health. He is also able to speak clearly enough to pursue his ordinary avocation without attracting attention. The sense of taste is as acute as ever it was. The author remarks that the satisfactory performance of the functions of speech and taste after so serious mutilation should encourage us to have confidence in the results of this operation when practised for carcinoma. Most cases of tuberculosis of the tongue have been mistaken and operated upon for carcinoma. The diagnosis

can only be made certain by scraping the ulcer and searching for tubercle bacilli.

R. Norris Wolfenden.

LEVISEUR, F. J.—Black Tongue. *New York Med. Jour.*, January 12, 1889.

THE author relates the notes of a case occurring in a young man of twenty-eight, also suffering from syphilis. Numerous mucous patches in the mouth and on the tongue appeared, which were obstinate to treatment, and one black spot developed in the centre of the tongue, looking as if covered with short black hair or wool. A portion microscopically examined showed elongated filiform papillæ, covered with hypertrophic epithelial cells, loosely overhanging each other and coloured dark sepia brown, the epithelium being darker than the subjacent connective tissue.

Black tongue occurs in both sexes, and at all ages, but principally in persons debilitated by disease or age. According to Brosin's recent researches, the black colour is not due to parasitic vegetations. It is caused by the accumulation of pigment, which in this case was diffused, not granular. The author thinks the pigment very analogous to that causing the black colour in comedones or in ichthyosis histrix seu nigricans (Unna).

R. Norris Wolfenden.

LANZ, ALFRED J. (Moscow).—On the Pathogenesis of Mercurial Salivation and Ulcerative Stomatitis. *Transactions of the Third General Meeting of Russian Medical Men at St. Petersburg, No. 2, 1889, p. 82.*

HAVING carried out a course of experiments on dogs in Professor A. B. Vogt's laboratory (Moscow), Dr. Lanz has arrived at the following conclusions:—(1) In cases of mercurial poisoning, salivation has a purely reflex origin. (2) The existence of an idiopathic mercurial pyalism (in Mering's sense) is, to say the least, very doubtful. (3) The saliva does not play any essential part in the pathogenesis of mercurial ulceration in the oral cavity, since the ulcers arise (in dogs) even after a total extirpation of all salivary glands.

Valerius Idelson.

DOBSON, N. C. (Bristol).—Cases of Oral Surgery. *The British Medical-Chirurgical Journal*, June, 1889.

CASE I. *Excision of Superior Maxilla for Sarcomatous Disease.* A rapidly growing tumour of the antrum was diagnosed, and the superior maxilla removed after preliminary laryngotomy. The patient made a good recovery, but a few months after the growth recurred as seen from the mouth and the temporal and zygomatic regions. Considerable swelling with suppuration about the orbit and temporal region followed, and the eyeball became prominent. After considerable suppuration the mass in the mouth seemed to subside, and the external swelling to diminish. About two years after (January, 1889) the author removed the eyeball, and the patient is progressing fairly. "It seems as if the 'sarcomatous growth had suppurated out, and the disorder appears to 'be declining.'"

CASE II. *Epithelioma beginning in the Alveolus and soft parts of the Hard Palate.* The patient was a lady, aged seventy-four. There was

much pain and considerable enlargement of the cervical glands. All the diseased structure was scraped and gouged off as far as possible, but no attempt was made to touch the glands. Four months after, there was some recurrence, and further enlargement of the cervical glands, but the patient had been free from pain.

CASE III. *Epithelioma of Alveolus*. A woman presented a sore over the gum of the lower jaw on the right side, extending into the floor of the mouth. The epithelioma appeared to spring from the alveolus, and the author attempted to remove it by dissection, scraping and gouging. A month after the author removed the right half of the horizontal ramus of the lower jaw, along with enlarged sub-maxillary glands and the floor of the mouth of that side. Subsequently the author has removed the whole of the horizontal ramus which was left after the first operation, for recurrence.

CASE IV. *Malignant Tumour of Tongue*. One half the tongue was removed by Marrant Baker's method, in a man sixty-eight years of age.

CASE V. *Epulis* springing from the alveolus of the right side of the lower jaw. The tumour filled the right side of the mouth, pressing the tongue backwards, projected to the roof of the mouth, and bulged the lower lip. It was as large as a fair-sized apple, and had been growing for seven years. The patient's age was nineteen. The alveolus was chiselled off with the tumour attached, and hemorrhage arrested by pressure and the thermo-cautery.

R. Norris Wolfenden.

BAKER, A. W. (Dublin).—*Pyæmia of Dental Origin*. *Dublin Journal of Medical Science*, July, 1888.

THE author describes a case in which a mild form of pyæmia was apparently caused by an alveolar abscess, the result of dental caries.

Hunter Mackenzie.

CARY, W. L.—*A Case of Epithelioma of the Soft Palate*. *Med. Record*, April 13, 1889.

A CASE reported at a meeting of the New York Academy of Medicine, February 26, 1889. The growth commenced with an attack of acute inflammation of the fauces, and in three months had attained the diameter of five-eighths of an inch, but produced no symptoms. It was removed apparently with galvano-cautery, and for six months gave no trouble. For the last three months there had been pain on swallowing. There is much loss of flesh. At this time the growth was about one inch in diameter, and convex anteriorly, and a small piece removed by Dr. Rice was found to be epithelioma. The disease is progressing, having lost its well-defined outline, and breaking down in one spot, pain and difficulty of swallowing have increased, but there is no glandular enlargement.

R. Norris Wolfenden.

BARLING (Birmingham).—*Adenoma of Soft Palate*.—*British Medical Journal*, February 2, 1889. (Exhibition of specimen before the Birmingham Branch of the British Medical Association, November 30, 1888).

THIS was removed from a woman, aged fifty-six ; it had been growing for some weeks.

Hunter Mackenzie.

WILLIAMSON.—Cleft Palate. *British Medical Journal*, January 26, 1889.

EXHIBITION of a boy, aged seven years, before the Northumberland and Durham Medical Society, January 10, 1889. He had suffered for a few months from ozaena, which was followed by splitting of the palate. The bifid uvula of congenital disease was absent. The usual operation was contemplated.

Hunter Mackenzie.

HARTMANN.—Complete Adhesion of the Soft Palate to the Posterior Pharyngeal Wall. *Versammlung Norddeutscher Ohrenärzte in Berlin*, April 22, 1889.

THE condition was the result of syphilis. An operation was performed for the separation of the adhesion, and a permanent opening resulted, allowing the patient to respire through the nose.

Michael.

EDITOR OF "BRITISH MEDICAL JOURNAL."—Paralysis after Typhoid Fever. *British Medical Journal*, January 19, 1889.

AN annotation referring to a paper by Dr. Ross on this subject in the American Journal of the Medical Sciences. In one of the cases upon which the paper is founded there was evidence of paralysis of the palate as in diphtheria, a unique feature in post typhoid paralysis.

Hunter Mackenzie.

HIRSCHLER AND IRSAL.—Pemphigus Vulgaris of the Skin, and Mucous Membrane of the Mouth, Pharynx, and Larynx. *Königliche Gesellsch. der Aerzte in Budapesth*, May 11, 1889.

THE authors exhibited a patient with a bullous exanthem covering the skin, and numerous bullæ occurred in the mouth, pharynx, larynx, and on the tongue. The patient was thirty-two years of age, and had never had syphilis.

Michael.

EDITOR OF "BRITISH MEDICAL JOURNAL" (London).—Primary Chancre of Tonsils. *British Medical Journal*, January 5, 1889.

AN annotation in which it is stated that extra genital syphilitic infection is very common over Russia. Of two thousand one hundred and twenty-five cases of syphilis collected by the Riazan Medical Society, seventy-four per cent. has originated in this way.

Hunter Mackenzie.

MIKHAILOFF, S. (Russia).—Note on the Treatment of Chronic Tonsillitis and Granular Pharyngitis by Insufflations of Bicarbonate of Soda. *Meditzina*, No. 21, 1889, p. 4.

DR. MIKHAILOFF emphatically recommends insufflations of finely powdered bicarbonate of soda, made once or twice a day, as an excellent method in chronic amygdalitis and granular pharyngitis, the recommendation being based on a large number of cases treated by the author during the last five years. Even in most obstinate cases, a striking

improvement is obtained in about a fortnight, while in a majority of cases a complete and permanent cure ensues in six weeks or so. The treatment is said to make quite superfluous any operative interference (especially in children).

The author insists on the great importance of properly diagnosing and treating the affections in question. Enlarged tonsils may give rise to most varying reflex symptoms, such as severe asthma, obstinate cough, laryngismus stridulus, etc. Besides, they represent a favourable ground for such acute diseases, as catarrhal anginas, diphtheria, etc.

Valerius Idelson.

CHEEVER (Boston).—**Sarcoma of the Tonsil—Excision.** *Med. Record*, May 25, 1889.

A PAPER read at the meeting of the American Surgical Association, May 25, 1889, and relating the case of a man aged fifty-seven, who for one year had been unable to breathe through the mouth on account of enlargement of the left tonsil. No pain was complained of until November, 1888, when, after catching cold, the tonsil swelled up and became sore, discharging spontaneously. Enlarged glands were then noticed in the left neck, which subsequently increased in size. There was dysphagia with difficult articulation, loss of appetite and weight. In January, 1889, the tonsil was found to project nearly to the uvula, and was as large as a pullet's egg, and there were two glands in the left neck as large as a horse chesnut.

The tumour was removed by external excision, the mylo-hyoid muscle divided, the lower jaw sawn through in front of the masseter, and the tumour pressed out of the mouth. It was covered with a delicate capsule, and exuded soft material on puncture. It was removed without much difficulty along with the capsule. The facial artery and external jugular vein were the only vessels tied, and there was no hæmorrhage. The wound in the pharynx was not sutured, the jaw was wired, the external wound brought together partially, and washed with a two per cent. boracic acid solution. On the thirtieth day the wires were removed, the jaws being firmly united.

On April 27th a second operation was performed for a tumour on the same side of the neck, and a large glandular mass was removed from the anterior carotid triangle. The throat remains healthy (May 15, 1889).

The tumours proved microscopically to be round-celled sarcoma.

In the discussion which followed,—

Dr. HAYES AGNEW remarked that there is only one case of sarcoma of the tonsil on record, in which recurrence has not taken place. In that case the thermo-cautery was employed. The operation should be undertaken simply as a palliative. He had been struck with the amount of exposure gained by simply slitting the cheek in operations on tumours of the throat as far back as the soft palate. This would probably give as good a chance as any other plan of procedure. The operation from without, as used by Dr. Cheever, is confessedly a difficult one.

Dr. VANDER VLEER remarked that the first well marked case of sarcoma of the tonsil coming under his observation was in a man aged seventy-two.

There was a round tumour of the tonsil, interfering with deglutition, and somewhat with breathing. The patient chose enucleation in preference to external operation. With the tonsillotome it was completely enucleated, and the thermo-cautery was not applied. There was no return of the disease for eight months. The growth then reappeared, and rapidly increased in size, and two months later the patient died from pneumonia.

Dr. P. S. CONVER thought that statements as to infrequency of tonsillar sarcoma are incorrect, and he knew of several unrecorded cases, two of which came under his own observation. One was in a girl aged twenty-six, and the disease was too far advanced for operation. A few days later she died. The second case was in a man aged forty, and the tumour was as large as a fist. By splitting the cheek he was able to readily separate the tumour from the capsule with the fingers. A month after he was in excellent condition, but a month after that (August) the disease began to recur, and grew rapidly, and some time after (October) the patient was found dead in bed supposed to have committed suicide.

Dr. H. M. RICHARDSON had sometime ago removed a tonsillar tumour by external excision. The enucleation was accomplished with ease, and without opening the pharynx. A year after the operation there had been no return, and the speaker believed the patient to be still living (two years after).

Dr. CHEEVER remarked that the dread of opening the alimentary canal was unfounded. The use of sutures in the pharynx and œsophagus would be dangerous. The operation from outside leaves less paralysis and less scar than that through the cheek.

R. Norris Wolfenden.

CHURTON (Leeds).—Tuberculosis of Pharynx and Rectum. *British Medical Journal*, January 12, 1889.

EXHIBITION of specimen before the Leeds, &c., Medico-Chirurgical Society, December 7, 1888.

Hunter Mackenzie.

DINSMORE, G. H. J. (Coldstream).—Coins in the Gullet. *British Medical Journal*, June 5, 1889.

THE coins were dislodged by the artificial induction of retching.

Hunter Mackenzie.

ALEXANDER, SAMUEL (Guilborough).—A Case of Cancer of the Œsophagus. *British Medical Journal*, January 5, 1889.

IN the case of a woman, aged seventy-two, a large cancerous mass was found at the base of the right lobe of the thyroid, pressing against the œsophagus. "The points of interest in the case were the absence of all pain during the course of the disease, of any history of cancer in the family, and the great danger of rupturing the œsophagus in the introduction of the œsophageal bougie."

Hunter Mackenzie.

WEAVER, J. J. (Southport).—Case of Gastrostomy for Stricture of Œsophagus. Death Three Months after Operation from Old Lung Disease. *Liverpool Medico-Chirurgical Journal*, July, 1889.

THE patient had an apparently impermeable stricture "about the level

"of the top of the sternum." On the third day after opening the stomach the patient recovered the power of taking fluids by the mouth, and kept this power off and on for a few weeks, but lost it absolutely some time before death. Thirteen weeks and four days after the operation the patient died from pulmonary complication. The stricture was found at the autopsy to be one inch below the level of the cricoid cartilage, to be circular and about one inch in vertical length. It proved to be well-marked epithelioma.

R. Norris Wolfenden.

SAVITZKY, V. D. (Vyborg, Finland).—**Case of Imaginary Impaction of Artificial Teeth—External Œsophagotomy—Recovery.** *Wratch, No.* 26, 1889, *p.* 574.

DR. SAVITZKY relates the following very curious and not less instructive case. About midnight he was hurriedly summoned to a stout, short necked gentleman, of fifty-five, who, while eating his supper, had swallowed a set of false teeth. The patient was found to be suffering from a high degree of facial and labial cyanosis, and steadily increasing extreme dyspnœa with intense congestion and protrusion of the eyeballs, weakened pulse (130 pro 1'), and general excitement. Speaking with a faint voice, he declared that the foreign body was entangled at the level of the clavicle, and that he was surely dying from suffocation. The patient's state rapidly growing from bad to worse, Professor Strömberg and Dr. Sundenan were at once invited for consultation. On palpation, something like a hardish tumour could be felt at the clavicular level, but all attempts at grasping the supposed foreign body by means of a coin-catcher utterly failed, the instrument invariably striking some impermeable obstacle in the upper thoracic portion of the gullet, and, in addition, becoming so tightly jammed at the spot that its withdrawal could be effected each time only with extreme difficulty. The patient urgently demanding an immediate removal of the foreign body by one or other operation, and his state being, to all appearance, exceedingly grave, external Œsophagotomy was performed without any further delay. No foreign body, however, was detected, a gastric sound passing quite freely into the stomach, which was deemed to indicate that, during relaxation of the gullet under the influence of chloroform, the plate had somehow descended. The supposition was duly communicated to the patient after he had awakened from narcosis. All of a sudden he commenced to feel an excruciating pain about the epigastrium, which hourly increased during the rest of the night and the next morning. About two hours after the author's morning visit, the set of teeth was accidentally found in a heap of rubbish under the gentleman's sofa. It was at once shown to the patient, which demonstration produced a truly magical effect, the gastric pain and all other symptoms vanishing instantly. The cervical wound which was left open and supplied with a drainage tube, cicatrised completely in about three weeks. No stricture of the site of the operation has yet developed.

Dr. Savitzky points out that the above case represents a typical instance of the development of a train of severe morbid phenomena

(cyanosis, dyspnoea, oesophageal spasm, etc.) under the influence of mental agents alone.

Discussing the operation, he says that, in the literature within his reach, he has been able to find only forty-nine cases of external oesophagotomy for foreign bodies, with eight deaths (16 per cent.).

[The author's collection consists of thirty-three cases gathered by Koenig, ten by Lindenbaum, and the cases published by Lediard (one), Bennett May (one), Alsberg (one), and S. V. Balüeff (three). The actual number of oesophagotomies is, however, by far more considerable. *Vide* Dr. Fischer's paper in the *Journal of Laryngology and Rhinology*, February, 1889, p. 71.—*Reporter*.]

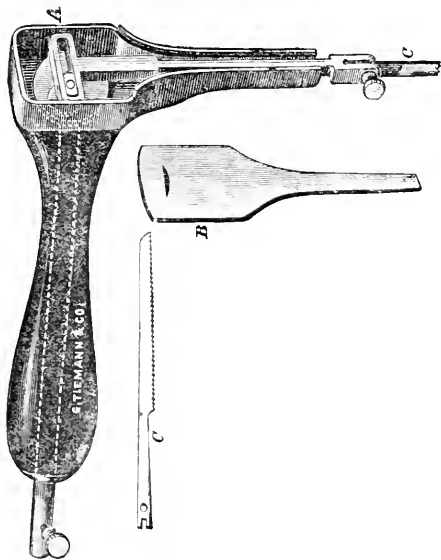
Valerius Idelson.

NOSE AND NASO-PHARYNX.

POTTER, F. H. (Buffalo).—A Mechanical Nasal Saw. *Buffalo Medical and Surgical Journal*, June, 1889.

THE cut illustrates an instrument intended to overcome some of the difficulties in the use of the hand-saw in operations for removing hard obstructions from the nasal passages. Where the obstruction is sloping, it is often impossible to engage the ordinary saw just at the point desired, and as a result, but part of it is removed. This necessitates other

operations. Again, when it is important to cut from below upward, the operator is at a disadvantage as to strength, and only succeeds with difficulty. The operator may enter this saw, even on a beveled surface, at the very point desired, and may also hold it in place without danger of slipping during the operation. By reference to the illustration it will be seen, that it consists of a handle, through which runs a shaft, topped with a disk. The disk has a pin attached upon one side. As this disk is made to revolve, it carries backward



A NASAL SAW.

and forward the saw-shaft by means of the arrangement shown below the letter *A*. The saw, *C*, is held firmly by a set-screw, and can be inserted with the teeth either up or down. The cover, *B*, fits securely upon the box, *A*, and thus protects the running parts from dust and injury. It is also easily removed for purposes of cleaning and oiling the parts. Special attention is called to the fact that, with the cover off, the saw-shaft can be lifted from its box, and this in turn allows the upright shaft to be pulled out of the handle; first, of course, removing the set-screw seen at the lower end of this shaft. By this arrangement all the parts can be cleaned with very little trouble, and the entire apparatus rendered aseptic.

The instrument is light but strong, the handle being of hard rubber, and the other parts of metal. The power for running it may be either the dental engine or some of its modifications, or the electric motor. Whatever the power used, a flexible shaft, connecting it with the handle, will allow free movement to the hand of the operator and to the instrument, thus increasing the range of its usefulness.

Messrs. Tieman & Co., of New York, have constructed the instrument, with attention to every detail, giving a most satisfactory result.

WINDLE (Birmingham).—**Hay Fever.** *British Medical Journal*, January 5, 1889.

THE author "had found great relief from cocaine, but the advantage was counterbalanced by the serious general derangement of the nervous system, which its prolonged use engendered. For temporary relief, "while sitting indoors, cubebs cigarettes were most effectual."

Hunter Mackenzie.

BARLING (Birmingham).—**Lupus Erythematosus.** *British Medical Journal*, January 5, 1889.

EXHIBITION of a woman, aged thirty-five, before the Birmingham Branch of the British Medical Association, November 8, 1888, who had suffered from this complaint for over twenty years. There was a symmetrical patch on each cheek, connected by a patch across the dorsum of the nose. Much improvement had resulted from the internal administration of cod liver oil, and its local application by rubbing into the affected parts.

Hunter Mackenzie.

BARK, J. (Liverpool). — **Naso-Pharyngeal Polypi with Frog Face Deformity.** *Liverpool Medico-Chirurg. Journal*, July, 1889.

THE record of a case of ordinary mucous polypi, in which the nose was broadened, but not presenting the typical "frog face" of naso-pharyngeal fibroma. The amount of the polypi present was great, the growths projecting from the anterior and posterior nares.

The author proceeded to their extirpation by a somewhat heroic surgical operation, viz., splitting the nose in the mid-line and opening the nasal cavities, scraping and using the forceps, and afterwards applying the galvano-cautery.

In the discussion which followed the narration of this case, at the Liverpool Medical Institution, Dr. Hunt remarked that these cases were

by no means infrequent, and he had himself removed such polypi with the *éraseur*. He could not see the necessity of such an extensive operation as the author had performed. Mr. Bark commented unfavourably upon Dr. Hunt's remarks.

[We, however, think that Dr. Hunt's remarks were very much to the point. Such cases are by no means rare in the practice of rhinologists, and severe external operations are extremely rarely called for. There may have been some reason for radical operation in Mr. Bark's case, which, however, has not been stated, but cases apparently as severe as this one are commonly successfully treated with the ordinary snare by rhinologists. It is better to avoid the term "naso-pharyngeal polypus, and the broadening and flattening of the nose in this case did not, judging by the pictures appended, by any means produce the typical "frog face" deformity which is associated with nasal fibromata.]

R. Norris Wolfenden.

PARKER, RUSHTON (Liverpool). **Case of Rhinoplasty.** — *Liverpool Medico-Chirurgical Journal*, July, 1889.

At the Liverpool Medical Institution, Mr. Rushton Parker related the case of a boy, aged sixteen, who had lost the cartilages of the nose from lupus. "After scraping and healing, a weak triangular scar at the junction of the contracted upper lip and nose was cut out, the nostrils opened by puncture, and the skin of the existing nose dissected off, but retaining its attachment on each side to the cheek, and added to the defective lip which thus became abundantly widened. A flap for the nose was now dissected up from the forehead, ample in size, and shaped so as to form columna and part of each ala in conjunction with the old nasal skin removed to the lip. The result at the end of operation was satisfactory, but an ominous purple colour of the tips boded a suspicion of partial failure. The greater part united well, but the ala and columna nasi sloughed, leaving a nose and lip vastly improved, it is true, and satisfactory in the matter of utility, but wanting in finish of form, owing to the peculiar horizontal line of the nose, which has resulted in place of the curves desired and actually constructed."

The patient has resumed his work at a brass foundry, but the nostrils have still to be kept opened with bits of rubber tubing.

R. Norris Wolfenden.

McWEENEY (Dublin).—**Rhinolith.** *British Medical Journal*, February 2, 1889.

THE specimen, which was exhibited before the Academy of Medicine in Ireland, January 11, 1889, weighed one hundred and five grains, and was extracted from a woman, aged forty-five, in whom it had caused little inconvenience.

Hunter Mackenzie.

JIRMÜNSKY, M. S. (St. Petersburg).—**On the Etiology and Curability of Chronic Atrophic Rhinitis.** *Transactions of the Third General Meeting of Russian Medical Men at St. Petersburg*, No. 10, 1889, p. 315.

UNDER the name of "chronic offensive coryza," or "atrophic ozæna,"

Dr. Jirmünsky describes a "nasal affection, characterised by enlargement " of the nasal cavities in consequence of atrophy of the turbinated bodies, " and by a thin discharge drying on the mucous surface in the shape of " greenish-yellow masses or crusts, easily passing into offensive putre- " faction." The etiology of the affection remains yet obscure. Some authors attribute ozæna to syphilis and scrofula, but, by no means rarely, there are met such cases in which both of the diseases are absolutely absent. Krause's opinion that the mucous membrane undergoes fatty degeneration with formation of offensive fatty acids was rejected by Fraenkel, who had been unable to find any acids of the kind in ozæna. According to Dr. Jirmünsky, the primary cause of the affection should be sought in congenital atrophy (or rather arrest of development) of the turbinated bodies and nasal mucous membrane. The latter, when in such morbid state, is apt to discharge an anomalous mucus, easily undergoing inspissation and decomposition under the influence of some (possibly specific) microbes, which find therein a favourable soil for their growth. The supposition is based on the fact that the author happened to observe several children belonging to the same family and subject to atrophic ozæna, which had developed without any preceding hypertrophy. In adult life, ozæna may arise from chronic rhinitis, accompanied at first by hypertrophy, and then by atrophy of the nasal structures. A complete recovery can be expected only in children. The best treatment consists in washing out the nose with a solution of bicarbonate of soda, chloride of sodium, and salicylic acid, alternately, with insufflating powdered boracic acid. In adults, with deep and inveterate degenerations of the nasal tissues, no *restitutio ad integrum* can be obtained, the prognosis being hopeless.

Valerius Idelson.

THORNER, MAX (Cincinnati).—**A Case of Persistent Tinnitus Aurium Relieved by the Removal of a Nasal Obstruction.** *The Lancet Clinic*, May 18, 1889.

THE patient had noticed increasing deafness for five years, associated with hissing and buzzing noises, which had increased so much as to be unbearable. There was nasal catarrh, a deflected septum, and complete closure of the right nostril, partly by a web and partly by the deflected septum. There was also some obstruction of the left naris. All ordinary measures having been tried without success, the patient consented to be surgically treated, and the removal of the web and straightening of the septum was accomplished, along with removal of other hypertrophies, so as to clear the nasal passages of obstruction. Gradually the tinnitus disappeared. The author thinks that the nasopharyngeal catarrh, consequent upon the obstruction, was propagated to the Eustachian tubes, and to the restoration of the nasal breathing and proper drainage of the secretions, and improvement in the condition of the Eustachian tubes, the cure of the tinnitus was due.

R. Norris Wolfenden.

POKRASOFF, I. (Elisavetgrad, South Russia).—**Larvæ of the Sarcophila Wohlfahrti in the Nose.** *Meditsina*, No. 12, 1889, p. 1.

DR. POKRASOFF relates the following instance of mycosis narium. A girl of fifteen, who had been sleeping out-doors many nights during the field work season (July), commenced to experience pain in her nose, which soon became considerably swollen and red, while there shortly supervened intolerable headache, sleeplessness, and extreme malaise. On anterior rhinoscopy, the author found two white minute bodies, which were situated high up, close to the septum, and, on extraction by means of a pincette, proved to be live larvæ of Wohlfahrt's fly. The extraction was followed by a rather profuse hæmorrhage. A probe, introduced into either of the small openings, passed pretty far backwards, but failed to discover the presence of any more maggots. On re-examination two days later, other two larvæ were found protruding from the same points. After their removal, all the symptoms rapidly abated and did not return.

A fairly exhaustive review of the international literature of mycosis narium may be found in a valuable series of papers published by Professor Hugo Summa, of St. Louis, in the *St. Louis Medical and Surgical Journal*, April, May, and June, 1889, p. 201. It may be supplemented by the following references to Russian works on the Wohlfahrtian fly. 1. I. A. Portchinsky: *A Contribution to the Natural History of Flies and their Larvæ causing Diseases in Man and Animals, with a Review of Symptoms of Mycosis*, 1875.—2. I. A. Portchinsky: *On Wohlfahrt's Fly Living in the State of Larvæ in the Human and Animal Body*, in the *Flora Societatis Entomologicæ Rossicæ*, 1884, Vol. XVII.—3. Professor Grube's paper, "*On the Wohlfahrtian Fly*," in the *Archiv. der Naturgeschichte*, von A. Wiegmann, 1853.—4. Professor E. K. Brandt, of St. Petersburg: *Larvæ of the Sarcophila Wohlfahrtii-Portchinskii, in the Human Gum*, in the *Urtach*, Nos. 5 and 6, 1888, p. 81.—A short account of the papers just mentioned will appear in the September issue of the *St. Louis Med. and Surg. Journal*.—Reporter.

Valerius Idelson.

LARYNX.

BOWLES, ROBERT L. (Folkestone).—On Raising the Epiglottis. *British Medical Journal*, January 12, 1889.

THE author claims that he "had already done (at various times since "1856) all the work which is now in 1888 presented to the public as new "and original." He further asserts that Dr. Howard claims too much when he affirms that his method is the new and only way of raising the epiglottis. (See Abstract of Dr. Howard's paper on the subject in this Journal, Vol. III., p. 293.)

Hunter Mackenzie.

HEWITT, FREDERIC (London).—On Raising the Epiglottis. *British Medical Journal*, January 26, 1889.

THE author discusses the views of Dr. Howard on this subject, and the

claims for priority by Drs. Bowles, Foulis, and others. He does not think the method of head and neck extension advocated by Howard likely to succeed in all cases of apnoea, especially when, from any cause, there is blocking of the nasal passages.

Hunter Mackenzie.

RETHI (Wien).—On Laryngitis Hæmorrhagica. *Internat. Klin. Rundschau*, 1889, Nos. 19, 20, 22, 24.

INCLUDING the description of three cases of this disease, the author gives a careful *résumé* of the literature of this disorder, and concludes that the hæmorrhages in laryngitis are only a symptom produced by the catarrhal affection of the mucous membrane.

Michael.

FAVITZKY.—On Laryngitis Hæmorrhagica. *Monatsschr. für Ohrenheilk.*, 1889, No. 6.

THE case recorded is of great interest, because it is the first in which an autopsy has been performed. The patient, forty-eight years old, had coughed for two years, and had expectorated sanguineous sputum for two weeks. The laryngoscope showed the mucous membrane and vocal cords dry, a little swollen, and of dark red colour. On the edges of the vocal bands were red blood coagula. Ten days later the patient suddenly became worse, and died from hæmorrhage. The histological examination of the larynx showed hyperæmia of the laryngeal and tracheal mucous membrane, and very many blood corpuscles were found in the mucous membrane. Laceration of any blood vessel could not be found. The hæmorrhagic inflammation cannot be regarded a special condition.

Michael.

PITT, G. N. (London).—Compression Lesions. *British Medical Journal*, January 12, 1889. (Specimens shown to the Hunterian Society of London, December 12, 1888.)

THE first was an ulcer of the mucous membrane of the posterior surface of the cricoid cartilage, caused by pressure against the vertebræ in a case of chronic pyæmia. The patient was slung up in a warm bath, with persistent retraction of the head; the pharynx necrosed as a result of the steady pressure. The same result occurred in a case of cerebro-spinal meningitis with retraction of the neck.

The second specimen was one of ulcers on the adjacent surface of the anterior parts of the mucous membrane over the arytenoid cartilage, in a case of enteric fever, stated by the author to be due, not to specific causes, but to pressure. These ulcers occur in about 10 per cent. of the fatal cases.

Hunter Mackenzie.

BATEMAN, FREDERIC (Norwich).—On an Obscure Case of Laryngeal Stenosis—Tracheotomy. *British Medical Journal*, January 5, 1889. (A paper read before the East Anglian Branch of the British Medical Association.)

THE nature of this case was obscure. Syphilis and tubercle seemed excluded. The stenosis was principally owing to "swelling of the aryteno-epiglottidean folds, encroaching, as it were, on the epiglottis, which is "thus drawn downwards." The patient recovered from the operation,

but was unable to dispense with the tube. [From the history of the mother of the patient—with three children born dead and three miscarriages out of ten pregnancies—the laryngoscopic appearances, and the absence of pain as a marked feature, we think the case is one of inherited syphilis, and likely to yield to iodide of potassium in fifteen grain doses *before food*.—H. McK.]
Hunter Mackenzie.

PITT, G. N. (London).—**Laryngeal Syphilis.** *British Medical Journal*, January 12, 1889. (Specimen shown to the Hunterian Society of London, December 12, 1888.)

IN this case there had also existed extensive destruction of the soft palate and fauces. During life, nothing more than destruction of the epiglottis, and swelling of the ary-epiglottic folds, could be made out with the laryngoscope. The ventricular bands and vocal cords, and the mucous membrane of the trachea were very severely ulcerated.

Hunter Mackenzie.

KIDD, PERCY (London).—**On a Peculiar Obstructive Form of Laryngeal Tuberculosis, which Simulates Bilateral Abductor Paralysis.** *British Medical Journal*, January 26, 1889.

A PAPER read before the Royal Medical and Chirurgical Society, 22nd January, 1889.

This paper was based upon six cases in which symptoms of laryngeal obstruction were found to be due to persistent fixation of the vocal cords in the position of phonation. All the patients were the subjects of phthisis. The following were the author's conclusions as to the probable causes of stenosis of the larynx in such cases :—

1. Dense tubercular infiltration around the arytenoid cartilages, secondarily involving the perichondrium, and leading to false ankylosis of the crico-arytenoid joints.
2. Ulceration and morbid adhesion of the altered vocal cord.
3. Suppurative crico-arytenoid arthritis.

A discussion followed.

Hunter Mackenzie.

HANDFORD, HENRY (Nottingham).—**Laryngeal Tuberculosis with Temporary Bilateral Abductor Paralysis.** *British Medical Journal*, January 26, 1889.

NARRATION of a case, the nature of which is indicated by the title.

Hunter Mackenzie.

RINGK (Berlin).—**On Laryngeal Phthisis and the Present State of its Treatment.** *Monatsschr. für Ohrenheilk.*, June, 1889.

NOTHING new.

Michael.

ANTONOFF, VLADIMĪR, E. (St. Petersburg).—**Laryngeal Ulcers in Typhoid Fever.** *Ejenedelnata Klinitcheskaja Gazeta*, 1889, Nos. 16, 17, 18 and 19, p. 285.

FOLLOWING the suggestions by Professor N. J. Sokoloff, Dr. Antonoff has undertaken a series of interesting researches concerning ulcerations

arising in the course of enteric fever. The work is based mainly on twenty fatal cases examined in Professor N. V. Üskoff's laboratory. The principal results may be condensed as follows :—

1. Laryngeal ulcerations complicate the course of typhoid by no means rarely. In fact, to judge from registers of the Alexandrovsky Town Pavilion Hospital, ulcerative laryngitis occurs in about 30 per cent. of all fatal cases of the primary disease. Meanwhile the percentage given by Zuelzer is about 20 ; by Heinze, 11·5 ; by Griesinger, 26 ; Hoffmann, 11·2 ; A. Geissler, 37·5.

2. Typhoid cases, complicated by ulceration, end in death mostly during the third and fourth week (in 31 out of 59 cases).

3. The order of the frequency in which various portions of the larynx are attacked by the process, is this : the apex of the epiglottis (in 14 out of 59 cases) and the posterior commissure of the true vocal cords (14) ; the margin of the epiglottis (10), and the vocal cords (10) ; the posterior surface of the epiglottis (6) ; the posterior wall of the larynx (2), and the pyriform fossa (2) ; the anterior commissure (1).

4. When situated on the margins of the epiglottis, or along the true vocal cords, the ulcers are mostly linear ; but those on the posterior commissure or posterior surface of the epiglottis have circular outlines.

5. The initial changes consist in hyaline degeneration of the membrana propria, the epithelium itself remaining yet normal.

6. Later on, the epithelial lining undergoes "coagulative neurosis."

7. Subsequently, hyaline degeneration spreads to the capillaries, and arterioles, and attacks individual portions of the connective tissue of the mucous membrane itself.

8. The degeneration ultimately leads to the formation of a well developed hyaline net-work at the site of the ulcer.

9. Another characteristic feature is constituted by a total absence of any inflammatory infiltration in the immediate neighbourhood of the ulcer.

10. The infiltration is always found along the boundary between the affected and normal parts, forming a kind of "demarcation line."

11. Other changes in the ulcerated tissues consist in "coagulative necrosis."

12. Suppurative perichondritis, with consecutive phlegmon in the neighbourhood, occurs only as a secondary phenomenon, arising in consequence of irritation, caused either by degenerated region, or by invasion of microbes.

13. In the deeper layers there may be frequently met a fine net-work surrounding the blood vessels, and consisting of pure fibrine, with leucocytes embedded therein. The reticle is especially developed in cases of typhoid fever complicated with croupous pneumonia. It is a true inflammatory effusion from the blood abounding in fibrine.

In none of the author's cases could Eberth's typhoid rods be detected in the ulcerated tissues, though there were invariably present great numbers of micrococci, which formed large colonies amidst hyaline masses, while deeper strata contained but individual cocci ; now and then the tissues showed the presence of sporadic rod-shaped bacteria. The

latter, however, were quite different from the specific microbe of typhoid fever.

Valerius Idelson.

FAVITZKY, ALEXANDER P. (St. Petersburg).—**On Functional Disturbances of the Vocal Apparatus in Puberty.** *Meditsinskoie Obozreniē*, No. 5, 1889, p. 475.

THE author draws attention to fairly common functional disturbances of the larynx, developing in an intimate connection with general biological changes of puberty. As a rule, the cases refer to adolescents or very youthful subjects, who either suffer from aphonia, depending upon paresis or paralysis of the constrictors of the glottis, or who speak with a curious, high and thin, squeaking falsetto (Fournier's *Voix eunucoïde*) determined by arrested development of the vocal apparatus as well as by inco-ordination of the phonatory muscles. In falsetto cases, the diagnosis is fairly easy. But in cases of aphonia, especially when the latter is accompanied by laryngeal congestion and catarrh, it proves sometimes pretty difficult to make out whether one has to deal with an instance of catarrhal laryngitis complicated by muscular paresis, or with a case of a functional character. The prognosis—provided a rational treatment is adopted—is usually favourable, and that even in inveterate cases. The only rational treatment, first introduced by Professor Fournier, consists in "laryngeal gymnastics." For the first three or four days, the patient is taught to make deep and slow inspirations and expirations, and, on the latter, to utter a sound as low as possible. The procedure is repeated for five minutes, several times daily. Subsequently, when the patient has attained certain routine and skill, he is made to pronounce words in the same lowest tone, making them longer and longer, and, later on, to read aloud, etc. In from ten to fourteen days the patient is cured, that is, he becomes able to speak with his new permanent voice (usually, baritone or bass) with perfect ease and freedom.

Dr. Favitzky adduces two interesting and instructive cases which came under his observation in Professor N. P. Simanovsky's clinic, and were cured by the method in ten days. One of them referred to a youth of seventeen, with falsetto of two years' standing; the other to a lad of sixteen, suffering from extreme hoarseness, amounting to almost complete aphonia of a twelvemonth's duration. His larynx was found to be red, tumefied and dry; there was present paresis of all the glottic constrictors. At first, a complicated laryngitis was diagnosed, and the case was treated as such by extra-laryngeal and endo-laryngeal galvanisation and faradisation, steam alkaline pulverisation, painting with nitrate of silver, etc. Not the slightest benefit was obtained from any of these means, successively applied for about ten weeks. In view of that failure, the diagnosis was ultimately changed to that of *asynergia laryngis transitoria*, and laryngeal gymnastics resorted to. On the 9th day, the lad could easily speak and read aloud with a baritone voice. On the 10th, his larynx was found normal.

The international literature of the subject is yet rather scanty. The first contribution (with thirteen cases, all cured) belongs to Professor

Fournier (*Voix eunukoïde, sa pathogénie*, etc., 1882). In 1883, Professor D. J. Koshlakoff, of St. Petersburg, tried laryngeal training in a case, and met with brilliant success. In 1885, Professor N. P. Simanovsky, of St. Petersburg, published his monograph "*On Functional Disturbances of the Vocal Apparatus during Puberty*." In 1886, Dr. Gorell reported (*La Province Médicale*, No. 25) seven cases of "eunukoïde voice," cured by Fournier's method. The affections are also mentioned, though but briefly, by Mandl and Gottstein, in their handbooks on laryngology.

Valerius Idelson.

BARON, B. J. (Bristol).—**The Treatment of Laryngeal Growths.**
Bristol Med. Chir. Journal, June, 1889.

THE records of some cases of this nature, with remarks. In one case, ten months of chronic congestion of the larynx was sufficient to give rise to a growth. In two others, the growth shrank in size, and the hoarseness disappeared by painting the neoplasm with astringents (zinc, perchloride of iron, and lactic acid). In a third case, rubbing the growth and applying chloride of zinc removed it. The author regards removal of the outgrowths in laryngeal phthisis as contra-indicated, and all worrying of the larynx by local treatment, especially in the pre-ulceration stage, is deprecated. Incidentally the author speaks well of scraping tubercular ulcers and application of lactic acid. Outgrowths in syphilis cannot usually be interfered with, as the resulting cicatrization will quite or more than compensate for the space opened up by operation. After tracheotomy, attempts may be made by cutting and dilatation to open up a passage, and large doses of iodides are beneficial. Tracheotomy, by giving rest to the glottis, may succeed in causing widening of the glottic chink, and the operation is on all grounds justifiable long before there is much stenosis. The author does not think that tracheotomy is done early enough in cases of malignant disease of the larynx, since the rest obtained will defer the period of ulceration and secondary infiltration.

R. Norris Wolfenden.

BROWNE, LENNOX (London).—**Congenital Growth of Larynx.**
British Medical Journal, January 19, 1889.

EXHIBITION of specimen before the Pathological Society of London,
January 15, 1889.

Hunter Mackenzie.

CREW, W. T. (Nottingham).—**Tumour of Larynx.** *British Medical Journal*, February 2, 1889. (Exhibition of case before the Nottingham Medico-Chirurgical Society, January 18, 1889).

THE patient, aged twenty, had had tracheotomy performed about eight months previously on account of a slowly growing sessile tumour of the right vocal cord. (No information is given regarding the nature of this tumour).

Hunter Mackenzie.

SEMON, FELIX (London).—**Laryngeal Cancer, in which Hæmorrhages, Perichondritis, and Exfoliation of the Greater part of the Laryngeal Cartilages occurred—Subsequent Pleuritis—Gangrenous Pneumonia—Death.** *British Medical Journal*, January 19, 1889.

CASE reported to the Clinical Society of London, January 11, 1889.
Its nature is indicated by its title. Hunter Mackenzie.

BUTLIN, HENRY T. (London).—Sequel of a Case of Epithelioma of the Vocal Cords, for which Partial Excision of the Larynx was Performed. *British Medical Journal*, January 19, 1889. (Case read before the Clinical Society of London, January 11, 1889.)

RECURRENCE took place about nine months after operation: tracheotomy.
Death fourteen months after tracheotomy. Hunter Mackenzie.

BUTLIN, HENRY T. (London).—Two Cases of Thyrotomy for the Removal of Malignant Disease of the Larynx. *British Medical Journal*, January 19, 1889. (Paper read before the Clinical Society of London, January 11, 1889.)

NOTES of two cases showing that simple thyrotomy, if performed sufficiently early in the course of the disease, may suffice for the removal of laryngeal cancers. Hunter Mackenzie.

NEWMAN, DAVID (Glasgow).—One Case of Anto-Inoculation in Laryngeal Carcinoma, and Two Cases Illustrating the Danger of Intra-Laryngeal Interference in Cancer of the Larynx. *British Medical Journal*, January 19, 1889.

IN the first case an ulcerating carcinoma developed on the left ventricular band of a patient aged forty-nine, and spread to the opposite side of the larynx by direct contact. The second case was an example of epithelioma of the larynx, in which carcinomatous disease of a lymphatic gland developed ten days after an intra-laryngeal operation. (The nature of this operation is not stated.) In the third case, endo-laryngeal removal of a fragment of an epitheliomatous growth was followed by diffuse swelling of the neck and glandular enlargement.

The author expresses his conviction that "Intra-laryngeal excision, for microscopic purposes, cleared up the diagnosis in laryngeal carcinoma, but it also exposed the patient to very serious dangers. In diagnosing cancer within the larynx, the surgeon practically could bring only one sense, that of sight, to bear on the diagnosis, and for this reason he had been driven to employ a method of investigation which he would not consider justifiable when the cancerous growth had originated in external parts. . . . Intra-laryngeal interference with malignant growths had shortened the lives of many unfortunate sufferers."

A careful perusal of his two cases has not convinced us that the author has succeeded in demonstrating the danger of intra-laryngeal interference in cancer of the larynx, and in the form of rapid extension of the disease.

It is not the general opinion that the method of investigation, to which reference is made, is not considered justifiable in the case of doubtful growths originating outside. We have seen eminent surgeons, including Sir Joseph Lister, have recourse to the microscopical examination of a fragment of a dubious tumour of the breast, before deciding

upon the diagnosis. The result of Dr. Felix Semon's elaborate investigations into the subject of cancer of the larynx has shown that malignant degeneration of a benign growth, after intra-laryngeal operative interference is so rare, as to be practically outside the range of probabilities. Nor is it the rule that endo-laryngeal interference, such as is involved in the careful removal of a fragment or even the whole of a growth, for microscopical examination, usually accelerates the spread of a malignant neoplasm. The writer of this abstract had under his care the case of a doubtful-looking growth of the right vocal cord, which he removed by endo-laryngeal means, in August, 1887. Recurrence took place in about three months, and again removal was accomplished, and microscopical examination of the growths last removed (Wolfenden) showed epithelioma. The patient's temporary recovery was so satisfactory, after the latter operation, that he declined to accept the diagnosis, and sought other advice. Over one year after the first endo-laryngeal operation, he he was seen, amongst others, by Dr. Newman, who, even at that late period, gave a favourable prognosis. About one and a half years afterwards, the disease broke out afresh, and complete removal of the larynx was performed by Professor Chiene. The endo-laryngeal removal of the growths in this case caused no local discomfort, and afforded a year and a half's respite to the patient. (*See Edin. Med. Jour., July, 1888*, where the first part of the history, with illustrations, is given; in it a more complete account of the case will shortly appear.) Hunter Mackenzie.

WILLIAMS, WATSON (Bristol).—**Tracheotomy-tube, worn for Thirty-six Years.** *British Medical Journal, December 12, 1888.*

EXHIBITION of patient before the British Medico-Chirurgical Society, 12th December, 1888. The nature of the laryngeal disease is not stated. Hunter Mackenzie.

MONEY, ANGEL (London). — **Functional (? Rickety) Infantile Palsy, with a note on "Lingual Irritability."**—*British Medical Journal, January 12, 1889.*

In some of these cases the muscles of the larynx appear to be affected, and laryngismus stridulus results. Tetany precedes the palsy.

Hunter Mackenzie.

LOOMIS, H. P. (New York).—**Sudden Asphyxia from Occlusion of the Glottis.** *Med. Record, April 20, 1889.*

THE larynx of this case was shown at a meeting of the New York Pathological Society, February 13, 1889. The man intoxicated, choked during eating, and at the autopsy three large pieces of meat were found in the throat, one completely occluding the glottis. R. Norris Wolfenden.

HEYMANN (Erlangen). — **Case of Formation of true Bone in the Mucous Membrane of the Trachea and the large Bronchi.** *Virchow's Archiv., 1889, Heft 2.*

THE clinical diagnosis was: Hypertrophy of the subglottic mucous membrane. For this tracheotomy and thyrotomy were performed, and

death followed. The post-mortem examination showed perichondritis of the cricoid cartilage, and necrosis of this cartilage, perforation of the œsophagus, ossification of the larynx and trachea. The ossified portions of the larynx and trachea showed under the microscope true osseous tissue.

Michael.

THELEN (Elberfeld).—**Foreign Bodies in the Air-Passages.** *Deutsche Med. Wochenschr.*, 1889, No. 28.

A CHILD, four years old, had swallowed a coffee bean. The foreign body was loose in the trachea, and caused attacks of suffocation. Tracheotomy was performed, and the bean extracted by forceps. Cure resulted.

In a second case the author performed tracheotomy in a child who had inspired portions of an egg shell. Death followed from bronchitis.

Michael.

MAY, BENNETT (Birmingham).—**Duck Bone in Larynx.** *British Medical Journal*, January 5, 1889.

REMOVAL by laryngotomy, without impairment of voice resulting.

Hunter Mackenzie.

NECK, &c.

NEAL, J. B. (London).—**Enlarged Thyroid Associated with Epilepsy.** *British Medical Journal*, January 12, 1889.

EXHIBITION of case before the Metropolitan Counties Branch of the British Medical Association, December 19, 1888.

Hunter Mackenzie.

GRIFFITH, WARDROP (Leeds).—**Case of Myxœdema.** *British Medical Journal*, January 12, 1889. (Case exhibited to the Leeds, &c., Medico-Chirurgical Society, December 7, 1888.)

THE patient was twenty-five years of age, and the affection had supervened on her confinement.

Hunter Mackenzie.

FLYNN.—**Myxœdema.** *British Medical Journal*, January 26, 1889.

A MAN, aged fifty-five, the subject of this disease, was exhibited before the Northumberland and Durham Medical Society on January 10, 1889. It was affirmed that iron, with phosphoric acid and quinine, and in other instances arsenic, answered well in this disease.

Hunter Mackenzie.

KOCHER. — **Report on Two hundred and fifty Extirpations of the Strumous Gland.** *Corresp. Bl. für Schweizer Aerzte*, 1889, Nos. 1 and 2.

THE author, who had formerly a mortality of fourteen per cent., now only has 2·4 per cent., and after operation for malignant forms 0·8 per cent. He gives the following rules for operation :—(1) Extirpation is indicated in malignant goitres, in inflamed goitres, and in diffuse hypertrophy of the strumous gland. The contra-indication is the failure of the existence

of healthy strumous tissue on the other side. (2) Enucleation is to be performed for cystic goitres, for isolated strumous tumours, and for the presence of strumous tumours in mobile goitres. (3) Evacuation is indicated in isolated small tumours of soft consistence existing in normal strumous tissue. Resection of the goitre is the normal operation. Ligature of the thyroid arteries is to be performed in struma vasculosa, and especially in Basedow's (Graves') disease.

Michael.

KÖHN (Grulich).—**Foreign Bodies in the Neck.** *Prager Med. Wochenschr.*, 1889, No. 26.

THE patient, eighty-one years old, fell upon his pipe, and then remarked that a portion of the pipe was missing. He had a good deal of bleeding from the mouth, and pains in the neck. Next day the author found the left tonsil covered with membranes like diphtheria. Externally the neck was swollen. By an incision in the cucullaris the piece of the pipe was found. Cure resulted in a few days.

Michael.

GREEN (Cork).—**Angina Ludovici, or Diffuse Cellulitis of the Neck and Throat.** *British Medical Journal*, January 12, 1889. (Notes of six cases read at the Cork Medical and Surgical Association, December 12, 1888).

THE author strongly advocated deep incision from the hyoid bone to the floor of the mouth in the mesial line. Some cases in which suffocation had almost occurred, were at once relieved by this treatment.

Hunter Mackenzie.

WYETH, J. A.—**Lymphomata of the Neck.** *Intern. Journ. of Surgery*, March, 1889.

A CASE of lymphomata of the neck was presented by the author at the Clinic, February 15, 1889. They were situated in front of, beneath, and behind the sterno-cleido mastoid muscle, surrounding the sheath of the jugular and carotid. Two parallel incisions were made on the two sides of the muscle, and then connected by a transverse incision, which divided about a third of the muscle. The operator said that, if necessary, he would entirely divide it, as it would unite after sewing, and be as good as ever. Seven tumours were removed, varying in size from a hazel nut to an egg. In the smaller ones the capsule was snipped, and lateral pressure caused them to pop out without trouble. The larger ones had to be dissected out, leaving the external layer of the capsule in the wound. So long as this is done, and the surgeon works close to the tumour with blunt-pointed scissors, or does "dry dissection" with any blunt instrument, as the handle of a scalpel, there is no danger. In two or three of the largest, all the tumour was removed, except a small pedicle, which was ligatured before cutting, thus avoiding hæmorrhage. The external jugular was tied and divided, but that was the only large vessel cut. The sterno-cleido-mastoid branch of the spinal accessory was cut, Dr. Wyeth saying it made not the slightest difference, and caused no trouble. He told of a case a few years ago, in which he found the sympathetic nerve spread out in a large "umbrella plexus" over a tumour, and he had no alternative but to cut it, which he did with mis-

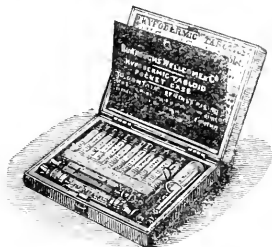
giving. The result was a dilated pupil and a flushed ear for a few days, and that was all. The operator, though practising thorough antisepsis, did not irrigate a great deal, saying that he considered much of the pneumonia and bronchitis attributed to ether to be due to misapplied and superabundant water.

R. Norris Wolfenden.

NEW PREPARATIONS.

Hypodermic Pocket Case (Burroughes, Wellcome & Co.).

THIS case contains a hypodermic syringe, with two needles, a mortar and pestle, and space for a dozen tubes of compressed soluble tabloids for hypodermic use. Each tabloid contains a quarter of a grain of sulphate of sodium as a vehicle for the alkaloid. Some fifty preparations of these alkaloids in tabloid form can be obtained from the manufacturers. The case before us contains morphine, pilocarpine, strychnine, ergotinin, hyoscyanin, digitalin, cocaine, atropin, apomorphine, and we cannot imagine anything more portable or compact than these cases. We think that every medical practitioner should possess one. It is impossible to imagine any more useful and complete *multum in parvo*, or any pocket companion which would be more serviceable to the practitioner than one of these Hypodermic Pocket Cases of Burroughes, Wellcome & Co.'s. The mention of the name of this firm is sufficient to guarantee the purity of the drugs used, and their accuracy of dose.



The Nebuliser.

THE patent rights of this ingenious instrument, invented by Dr. Lighthill, of Boston, have been purchased by Mr. A. E. Holt, of 74, Fleet Street. Of the various atomisers in use, we believe this to be undoubtedly the best for the purposes for which it is intended—namely, for cold nebulisation. The essential oils, mixed with cosmoline or fluid vaseline, can be used by this atomiser, and the apparatus forms the finest and most perfect cloud of vapour we have yet seen obtained by any similar instrument. While willingly saying this much of the instrument, and according to it all the great credit which is due to it, we cannot look with favour upon the printed list of directions supplied with the apparatus. This paper contains formulæ for twelve mixtures, “gathered from the practice of eminent specialists in diseases of the respiratory organs” for the treatment of “rhinorrhœa,” “phthisis,” “obstinate cough,” “hay asthma,” “chronic bronchitis,” “asthma,” “dry catarrh,” “laryngeal cough,” and “antiseptic inhalation,” and an extract from “Cohen on

Inhalation." From the directions we gather that these various mixtures are intended for self medication, and we cannot but regard this as particularly objectionable, both because we strongly condemn any medication not undertaken under professional advice, and also because in the twelve prescriptions given we find chlorodyne, lobelia, cocaine, belladonna, conium, stramonium, paregoric, tincture of opium, and corrosive sublimate. If the manufacturer will be content to address the medical profession, we believe that his nebuliser will meet with all the success which it really merits, for, as we have previously said, it throws a more perfect nebulised cloud than any other atomiser with which we are acquainted.

A CORRECTION.

IN the JOURNAL OF LARYNGOLOGY for June, 1889 (page 230), I expressed surprise that SOLIS-COHEN doubted the possibility of complete anæsthesia by cocaine for endo-laryngeal operations. In a letter from SOLIS-COHEN to me, he states that this opinion was expressed by him early, at a period when he used only weak solutions of two to five per cent. At the present time he entirely agrees with me as to the efficacy of cocaine when employed in strong solutions of twenty per cent.

Dr. J. Sedziak.

NOTES.

ANTIPYRIN and Lanoline have been adopted as official in the Austrian Pharmacopœia, a sufficient endorsement of the value of these two modern preparations.

Dr. JOHN O. ROE, was elected Chairman, and Dr. F. H. POTTER, Secretary of the Section on Laryngology and Otology of the American Medical Association for the ensuing year. The next meeting will be held in May, 1890, at Nashville, Tenn.

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NOTES ON A CASE OF PRIMARY SARCOMA
OF THE TONSIL.

By R. NORRIS WOLFENDEN, M.D., Cantab.,

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It is generally thought that malignant disease of the tonsil is a somewhat rare condition. Latterly quite a number of cases have been recorded, but the total number of cases on record, judging from the bibliography given in two recent and interesting papers on the subject, viz., MacCoy (*Phil. Med. News*, February, 1889), and Gray (*American Journ. of the Med. Sc.*, February, 1889), is, as yet, scanty. It would appear that only some nineteen or twenty cases have been described in the medical journals. It is, however, very probable that many cases are seen in practice, which are not recorded. Thus, Dr. P. J. Conver, at the American Surgical Association Meeting, in May, 1889, remarked that he knew of several unrecorded cases, two of which had been under his own observation. During the last two or three years I have, myself, seen four cases of malignant disease of the tonsil. One was under the care of a colleague, and has not, so far as I know, been recorded; another was a case of round-celled sarcoma, under the care of another colleague, and in which I made a microscopical examination; a third occurred in my own practice, and was a case of lympho-sarcoma in an aged woman, and the fourth was the case, the notes of which I append.

Morell Mackenzie, in his work, "Diseases of the Throat and Nose," stated that he had, himself, met with seven cases of this disease, five of which were encephaloid, and two, scirrhus cancer. Carcinoma, however, appears to be of the greatest rarity in connection with the tonsil. Cases latterly recorded have all been varieties of sarcoma, and Sir James Paget has pointed out that as methods of investigation have improved, it is most likely that the cases previously described as medullary carcinoma were, in reality, sarcomas.

L. L.

The disease is much the most common in the male sex. Thus, in Gray's nineteen cases, thirteen were males, four females, and in two the sex was not stated. As to age, Gray's case of sarcoma occurred in a boy of six, four cases have occurred under the age of twenty, two between twenty and forty, two between forty and fifty, and the majority over the age of sixty.

The following are the notes of a case recently under my care :—

M. A., a woman, aged fifty-two, who had never suffered from any tonsillar enlargement before, came to me complaining of the presence of a lump in the throat, which interfered with the act of swallowing, and which had been getting larger latterly.

The tonsil of the left side was found to protrude as a rounded hard mass. The protrusion was only relative, as the tumour lay well within the faucial pillars, but the tonsil of the opposite side was atrophied, causing the left, affected, tonsil to appear large in comparison. With the finger it could be lifted quite out of its bed, and was attached to sound tissues by a broad pedicle. The surface of the tumour was smooth, its size was a little larger than a Barcelona nut ; it appeared dark in colour, tense, and all round it, when it was embedded in sound tissue, it was surrounded by a red areola. Pain, shooting into the ear, was produced by manipulation of the tumour, and there was pain on pressure of the neck at the angle of the jaw, on the left side. Slight pain was complained of on deglutition. There was no ulceration, and had never been any hæmorrhage. There was tumefaction, fairly solid, of the side of the neck, about the angle of the jaw, but no enlarged glands could be felt anywhere distinctly.

The enlarged tonsil was removed with the galvano-cautery snare, no hæmorrhage being experienced, and examination with the microscope proved it to be small round-celled sarcoma. A fortnight afterwards, the place of removal had considerably healed up, and the pain had diminished, and the patient left to go into the country. A little cheesy-looking exudation was pressed out of two spots on the tonsil. A diagnosis of sarcoma of the tonsil was made upon the following grounds :—

1. The age of the patient (fifty-two).
2. Pain on pressure and pain at the angle of the jaw.
3. The enlargement of one tonsil only, previous hypertrophies of the tonsil having been absent, and the patient never having submitted to any operation for tonsillar hypertrophy.
4. The gradual increase in size of the tonsil, and the inflammatory areola surrounding it.

Microscopical examination confirmed the diagnosis previously arrived at.

Simple hypertrophies of the tonsil do not occur at the age of fifty, a period at which the tonsils are usually more or less atrophied. They also are not painful, not usually unilateral, and never have an inflamed areola.

It is worthy of note that as Croly has pointed out, sarcoma of the tonsil may simulate tonsillar abscess, a point to which, as he remarked, no surgical writer has drawn attention. Such a tonsil may bleed very freely when incised, and pus of course does not flow from the incision. When

occurring in a young patient, "the history of the case, the rapid growth, the glandular swelling, the elastic semi-fluctuating sensation obtained on manipulation, and the smart hæmorrhage following incision," lead to the diagnosis of malignancy (Croly).

Bearing in mind these points, the diagnosis is not usually difficult, but in doubtful cases should be verified by microscopical examination.

A good many of these cases appear to commence with the phenomena of ordinary tonsillitis.

An excellent account of the different methods adopted by various operators for excising the tonsil from outside, is given by Dr. Fowler, in the *Brooklyn Medical Journal*, for September, 1888.

Some operators favour simple slitting of the cheek, as a means of gaining access to the tonsil, others prefer pharyngectomy with or without section of the inferior maxilla. The latter is generally performed, and it has frequently been found necessary to resect a portion of the angle of the jaw.

Recurrence has always taken place, except in one case, and this is not always of the region when the first extirpation was performed, as in Fowler's case, when the disease reappeared in both parotid glands and in the stomach.

Operations for complete eradication of the neoplasm are therefore only palliative, and it seems doubtful if anything is gained more than could be obtained by extirpation of the neoplasm, *per vias naturales* by the galvano-cautery snare. As Dr. Hayes Agnew remarked at the meeting of the American Surgical Association, in May, 1889, there is only one case of sarcoma of the tonsil on record, in which recurrence has not taken place, and in this case, the thermo-cautery was employed.

THERAPEUTICS, DIPHTHERIA, &c.

SUCHANNEK.—The Therapeutical Applications of Sozoiodol. *Corresp. Bl. für Schweizer Aerzte*, May, 1889.

THE author has tried local applications of mercuric sozoiodol and sodium sozoiodol with good results.

Michael.

GOUGUENHEIM.—Treatment of Inflammations of the Throat by the Internal Administration of Salol. *Revue Générale de Clinique et Thérapeutique*, August 22, 1889.

DR. CAPART, of Brussels, having described to the author the almost miraculous action of salol in doses of four grammes, as a remedy for phlegmonous tonsillitis, Gouguenheim has given the drug in twenty-two cases with remarkable results. He concludes that salol acts efficaciously against acute anginas of whatever origin. It calms pain and dysphagia with the greatest rapidity, and lowers the temperature.

Joal.

FRITSCHÉ (Leipzig).—**Whooping Cough, with singular grave Cerebral Symptoms.** *Jahrsb. für Kinderheilk., Band 29, Heft 3 and 4.*

WHOOPING cough in a patient two years old was complicated with unilateral spasms, paresis of the right facial nerve, aphasia, hemi-anæsthesia, and disturbance of vision and hearing. The author believes that this complication of symptoms was caused by meningeal or cerebral hæmorrhage. The patient was cured.

Michael.

SCHNIRER (Wien).—**The Treatment of Whooping Cough.** *Archiv. für Kinderheilk., Bd. 10, Heft 6.*

THE author criticizes the paper of Genser recommending the antipyrine treatment, from which he has never seen good results. He has applied oxymel scillæ, as recommended by Netter, in twelve cases with good results.

Michael.

MUGDAN.—**Contribution to the Therapeutics of Whooping Cough.** *Archiv. für Kinderheilk., 1889, Bd. 10, Heft 6.*

IN the polyclinic of Dr. Baginsky the author has examined the efficaciousness of the newly recommended medicaments for whooping cough :—

(1) Resorcin was applied internally in eight cases. Only one case was cured, and in the other cases it had no effect ; and this treatment cannot, therefore, be recommended. (Dr. Barlow, the originator of this method, had cured his cases, as can be seen from his tables, in eight to twelve weeks, and as that is a time in which whooping cough usually terminates without any treatment, it cannot be said that the report of the originator of the treatment is any recommendation of this medicament. —*Rep.*)

(2) Brushing with cocaine, first recommended by Prior, was applied in eleven cases, with good results. The method cannot however be recommended, since some very alarming intoxications have been observed from even small doses.

(3) Insufflations of pulvis resinæ benzoas were used in some cases as by Michael, and applied with good results by Bachem, Hagenbach, Stoerk, Lublinsky, etc. Only Genser has recorded bad results. Forty-four children were treated in this manner, but only twenty-five cases gave observations of any value. The results were very satisfactory. In some cases cure resulted in three to six days. Of the total twenty-five cases, a good result was observed in seventeen in a relatively short time (3 weeks). The author recommends the treatment as the best yet suggested, and one which should always be tried before any other.

(4) The application of quinine, which, without doubt, is very efficacious, is not to be recommended, because of its bad effects on the stomach and ear. In its place antipyrin is recommended by Sonnenberger, Genser, etc. No good result, however, was observed from its use. It had been applied for a long time before Genser's recommendation of it.

Michael.

MEIGS, ARTHUR V. (Philadelphia).—**The Treatment of Spasmodic Croup by Opium.** *Medical News*, March 23, 1889.

THE author means all forms of the disease characterised by the absence of false membrane, supposed to be spasmodic, inflammatory, or catarrhal. In all severe cases an emetic must be administered, and to insure prompt result nothing is better than a teaspoonful of powdered alum mixed with a teaspoonful of syrup of ipecac. If emesis does not occur in within ten or fifteen minutes, repeat the dose. Ipecac. alone, and sulphate of zinc are not so good, and antimony is dangerous. If emesis is not required, the spasm can be best combated by administration of a dose of laudanum and ipecac., sufficient of the former to produce moderate but decided soporific effect, and of the latter to relax spasm, but not nauseate. For an adult this would be twenty drops of laudanum, and fifteen of the syrup of ipecac. A second dose may be given somewhat later, and reduced in amount.

A minimal dose of opium should always be given to a child. For a child two years old, the first dose should not be more than two drops of laudanum, with ten of ipecac. syrup, repeated in an hour. For an infant of two to six months, the first dose should be half a drop of opium, with five or six of ipecac. This treatment tides over the immediate attack, but the child should be kept in bed the following day, and given every two hours minute doses of paregoric and ipecac., to which nitre may be added if there is fever. The amount of opiate should be insufficient to cause sleepiness, and of ipecac. to avoid nausea (for children from two to five years of age, five to ten drops of paregoric, and five drops ipecac. syrup). The second night laudanum and ipecac. should again be administered, the second day be kept in bed, and laudanum and ipecac. again given the third night. After this the cough will loosen, and there will no longer be any return of spasm, except in cases of unusual severity. The dose of opium administered should always be relatively such as is likely to produce the effect of twenty drops of laudanum in the adult.

After the spasm has passed off the treatment must be that of coryza or bronchitis. Unusual susceptibility to the use of opium in children is not common, and the drug has gained a bad name among physicians only because the initial dose given has been too large. Meigs and Pepper, Goodhardt and Eustace Smith are quoted by the author in support of his contention for the value of opium in children's diseases when properly used.

R. Norris Wolfenden.

NELSON, SAMUEL N.—**The Etiology of Diphtheria.** *The Boston Medical and Surgical Journal*, March 14 and 21, 1889.

AFTER reviewing the literature of the germ origin of diphtheria the author relates some experiments he made by cultivating micrococci from fresh diphtheritic membrane taken from a child's throat, injecting these micrococci into animals, which became diphtheritic, and, lastly, by accident, taking the disease himself, after killing and investigating the animals that had been inoculated.

A discussion of this subject by the Massachusetts Medical Society followed this paper.

Dr. ROTCH summarised his remarks as to the treatment of the disease thus :—

1. Carefully determine which portion of the throat is the seat of the local sepsis.
2. Apply to that portion a disinfectant which is not irritating locally or dangerous generally.
3. Apply the disinfectant frequently.
4. Give stimulants in large amounts.
5. Treat generally as for any exhausting contagious disease.

Dr. GAY spoke on intubation in cases where air operation is necessary, and considered that it is much superior to tracheotomy.

Dr. F. B. HARRINGTON said that more lives might be saved if tracheotomy was done earlier, and because intubation is so much less as a surgical procedure it will be done early, and thus will save lives that would be lost if we waited before tracheotomizing.

Barclay J. Baron.

RACHFORD (Newport, Kentucky).—**Etiology of Diphtheria.** *Medical News, February 2, 1889.*

A GENERAL discussion of the subject, the author's conclusions being as follows :—

1. Diphtheria is a purely local disease, caused by an aerobic parasite.
2. The constitutional symptoms are due to the absorption of poisonous materials, viz., ptomaines from the local lesion, and the changes occurring in the blood and tissues, including the late nerve lesions are caused by the indirect or direct action of ptomaines.

3. The disease has no latent stages, and second and third attacks are due to re-infection.

4. One attack as a rule gives at least temporary immunity ; after the limited period of immunity has expired, the previous attack may act as a predisposing cause to other attacks if it has left the mucous membrane of the throat in an irritated and inflamed condition, and this is more likely to occur in scrofulous subjects.

5. Complications may occur from the entrance into the body of septic germs. Upon these data the author proposes the following rules of treatment.

(1) Dissolve away the membrane if possible, and irrigate thoroughly and frequently with an antiseptic solution locally, so as to wash away the poisonous alkaloids and retard the growths of the germs. (2) In diphtheria of wounds, and in other parts when it is practicable, thorough irrigation should be followed by a dressing which would exclude the external atmosphere. (3) Mild catharsis, free diuresis and diaphoresis, with remedies which do not depress the heart, should be employed to relieve the system of the poisonous alkaloids, and cardiac depression should be counteracted by abundant stimulation. Iron should be freely administered to counteract the deteriorating influence of the poison upon the blood. (4) The air of the sick room should be rendered aseptic. (5) Chronic glandular enlargement, or local disease, in or about the throat, left as the sequel of diphtheria, should be duly treated and cured before dismissal of the patient. If this cannot be done, the patient should

be warned against future exposure to the diphtheritic poison. (6) The patient should not be entirely dismissed from observation for two months after the attack, during which time tonics and judicious treatment should be administered to restore the blood and tissues, and resist degenerative changes. (7) A serious exacerbation in any form of ulceration or catarrh of the stomach or intestines should lead to the suspicion of diphtheria of these regions, and appropriate treatment should be given. R. Norris Wolfenden.

EDITOR OF NEW YORK MEDICAL JOURNAL.—The Transmission of Diphtheria from Animals to Man. *New York Medical Journal*, February 2, 1889.

THIS is a reference to an article in the *Revue Générale de Clinique et de Thérapeutique* for January 2, 1889, by Dr. Cazenave de la Roche, in which the author discovered the source of two cases of diphtheria in a pigeon and hen-house, the fecal deposits from which were washed into a cistern for drinking water, in the near vicinity. He also believes than an epidemic that broke out in Venice, some years ago, was due to the contamination of cisterns by pigeons, which are very numerous in that city. The remedy for this is to limit pigeon breeding, and construct the dove-cotes some distance from cisterns, where spring water is not available.

Barclay J. Baron.

CHANTEMESSE and VIDAL.—Experimental Researches on the Treatment of Diphtheria. *Bull. Med.*, July 20, 1889.

THE authors have made experiments to find the best antiseptic for the poison of diphtheria, and recommend the following mixture: Twenty-five grammes of glycerine are added to five grammes of pure phenic acid, and twenty grammes of camphor; the mixture is agitated, and put for ten minutes into a vapour bath. It is then allowed to cool. On resting the liquid separates into two layers, the upper of which is a whitish, viscous layer of glycerole of phenol and camphor. This glycerole is recommended by the authors as an effective local remedy for the throat.

Joal.

JACOBI (New York).—The Treatment of Diphtheria (translated by Dr. Michael). *Archiv. für Kinderheilkunde* Bd. 10, Heft 6.

SEE the report of the original in this Journal.

Michael.

CALDWELL, W. C.—The Treatment of Diphtheria with a Spray of Hydronaphthol, Papain, and Hydrochloric Acid. *New York Medical Journal*, Feb. 23, 1889.

This is a *résumé* of an article that appeared in the "Archives of Pediatrics," February, 1889, in which the author recommends spraying the throat every half hour until the temperature is reduced, and then every hour, unless asleep, with the following mixture:—

R Papain	ʒ ij.
Hydronaphthol	Gr. iij.
Acid: Hydrochloric, dil...	ʒ xv.
Aq: dist. ad.	ʒ iv.

And has good results of the treatment in several cases. Barclay J. Baron.

JACKSON, HENRY.—Notes on Twenty-seven Cases of Diphtheria, occurring between July 1, 1888, and January 1, 1889. *The Boston Medical and Surgical Journal*, March 14, 1889.

THE chief point in this clinical record is as to the diagnosis between diphtheria and follicular tonsillitis, the author believing that in diphtheria (1) the temperature is much lower, often normal; (2) the constitutional symptoms are usually much less severe at first; (3) the glands about the neck are more swollen and tender.

Barclay J. Baron.

McCOLLUM, J. H.—Observations on Diphtheria in Boston during the Year 1888. *The Boston Medical and Surgical Journal*, March 21, 1889.

THE author's object in this paper is to show that diphtheria spreads by contagion, and is to a large extent independent of climatic conditions—e.g., October, November, and December are months in which the number of cases constantly increases. In January there is a slight falling off in numbers, and again an increase in March, April, May, and June. The school terms and vacations are said to explain the rise and fall in the number of cases rather than variation of temperature, &c.

Barclay J. Baron.

BOKAI.—Case of Pharyngeal Diphtheria, with Complications. *Gesellschaft der Aerzte in Budapesth*, Meeting April 6, 1889.

THE case was complicated by convulsions and hemiplegia, and followed by croupous pneumonia. The patient, eight years old, was cured after the disease had lasted one hundred days.

Michael.

HAILES, W. (Albany).—A Case of Intubation. (*Med. Soc. of the State of New York, Meeting February, 1889.*) *New York Med. Journal*, February 16, 1889.

A CASE of membranous diphtheria, in which casts of the trachea were coughed up through the tube three times, nearly strangling the child at the time. Recovery finally took place.

R. Norris Wolfenden.

BROWN, DILLON.—Intubation of the Larynx in Diphtheritic Croup: Analysis of Two Hundred Cases operated upon. *New York Medical Journal*, March 9, 1889.

THE cases are thus classifiable:—

Males, 87; females, 113.

Average age of all the cases, three years five months.

Of those that died, three years two months.

Of those that recovered, four years five months.

In fatal cases average length of life after intubation was two days twenty-three hours. In cases of recovery, average time of tube in larynx was five days ten hours. Out of two hundred cases operated on, fifty-four, or twenty-seven per cent., recovered.

The tables published with the paper appear to show—

1. The more rapid the stenosis the more fatal the result.

2. Those cases in which membrane is absent from the pharynx or posterior nares are rather more fatal than those cases in which membrane is present.

3. From July, 1885, to November, 1886, there were forty-five operations and 17·7 per cent. recovered. From November, 1886, to November, 1887, there were seventy-four operations, with 24·3 per cent. recoveries. From November, 1887, to November, 1888, there were eighty-one operations with 34·5 per cent. recoveries. The marked improvement, as the different batches of operations were performed, was due, Dr. Dillon Brown considers, to increased experience in the management of the cases, and not especially to the type of diphtheria differing in different winters.

Barclay J. Baron.

MOUTH, PHARYNX, ŒSOPHAGUS, &c.

WYETH, J. A. (New York).—Complete Extirpation of both Parotid Glands for Sarcoma: no recurrence after two years. *New York Surgical Society*, December 26, 1888; *New York Med. Journal*, February 23, 1889.

THE external carotid artery was ligated on each side. The disease recurred on one side after six months, rendering a second operation necessary; since that there has been no recurrence. On the right side the external carotid artery was tied just at the point of bifurcation.

R. Norris Wolfenden.

MILONAS, SPİRİDON N. (St. Petersburg).—Double Parotitis of a Reflex Origin. *Meditsinskā Pričavleniā R' Morskoiū Sboznikū*, April, 1889, p. 352.

At a meeting of the St. Petersburg Naval Medical Society, Dr. Milonas communicated the following curious case. An exceedingly nervous and emaciated recruit, aged twenty-two, fell ill with a severe attack of right-sided croupous pneumonia. On the third day there supervened incontinence of urine, alternating with retention, while on the ninth there developed a prostatic abscess, determining a complete prolonged retention, and necessitating catheterisation. The latter proved to be extremely difficult, since, on one hand, any attempt at introducing the instrument into the urethra gave rise to general clonic convulsions, while, on the other, the end of the catheter deviated from the urethra into the prostatic abscess. Several hours after those repeated and prolonged manipulations there suddenly appeared rigor and pain about the right temporal region, which were swiftly followed by intense swelling of the corresponding parotid, rapidly passing into suppuration. The patient's micturition being at the time restored, no catheter was used for the next six days. On the seventh, however, another prolonged attack of retention of urine took place, and catheterisation was again

resorted to. It was most rapidly followed by the development of a left-sided suppurative parotitis. The patient ultimately recovered, though but very slowly. Analysing his case, Dr. Milonas comes to the conclusion that on either occasion parotitis was caused in a reflex way by the said intense irritation of the patient's genito-urinary tract.

During a discussion Dr. Balinsky adduced three similar instances of reflex parotitis from his own practice, all referring to women. In one of the patients, who had undergone some operation for vesico-vaginal fistula in the morning, the subsequent insertion of a catheter *à demeure* was followed at night-fall by swelling of one of her parotids. In another, suffering from uterine flexion, the introduction of a sound into the womb gave rise on each occasion to a rapid painful enlargement of the gland. In the third, parotitis developed shortly after the amputation of the womb, preceded by the introduction of a catheter into the bladder.

Valerius Idelson.

LIMBECK (Prag.).—**Case of Hemiatrophia Linguæ.** *Präger Med. Wochenschr.*, 1889, No. 16.

A FULL description of a typical case of this rare disease. Michael.

KIRCHHOFF (Berlin).—**On Benign Neoplasms of the Tongue.**

(1) A NEOPLASM of the size of a bean on the back of the tongue was extirpated. The microscopical examination showed it to be fibroma.

(2) A patient, sixty-two years of age, had for four years a neoplasm of the size of an egg situated on the back of the tongue. Microscopically, it was evident that it was a lipoma. Extirpation was performed, and cure resulted.

Michael.

WARREN, J. C. (Boston).—**Cancer of the Tongue.** *Boston Society for Medical Improvement*, January, 1889. *Boston Med. and Surg. Journal*, February 14, 1889.

THE author showed a specimen removed from a patient fifty years of age, who thirty years previously had had syphilis, and subsequent specific ulceration of the tongue, which had returned occasionally and disappeared. At the seat of the ulcer a growth had occurred, and had continued with a breaking down in its centre. Iodide of potash administered proved inefficacious. A piece being removed by a sharp-edged exploratory cannula, a diagnosis of epithelioma was microscopically made, and the tongue afterwards removed by Billroth's method, *i.e.*, by ligaturing the lingual artery in the neck before operation.

R. Norris Wolfenden.

KRAUSE, FEDOR (Halle).—**On Operation for, and Prognosis of, Cancroids of the Tongue.**

THE author describes the method of operation performed by Volkmann. In thirty-seven cases operated on, seven are now living without recurrence. The time since the operation of these cases is from eight months to six years. Three cases have remained well longer than four years, and, therefore, can be regarded as cured.

Michael.

VERGELY.—Syncope and Convulsions provoked by Forced Lowering of the Tongue. *Journ. de Méd., de Bordeaux, March, 1889.*

THE case of a child, eighteen months old, affected with stridulous laryngitis, and in whom depression of the tongue for examination of the throat determined syncope and convulsions. Joal.

FOURNIER.—Gummata of the Palatine Arches. *Journal de Méd., July, 1889.*

GUMMATA of these regions occur under two forms, a nodular, which is very rare, and a diffused form, characterised at the first stage by malformation of the palate, redness, and hardness, thickening, and immobility. In the period of ulceration this latter form presents a wound, or a simple or multiple perforation, and the palatine arch may in some cases be completely destroyed. Joal.

MACCOY (Philadelphia).—Sarcoma of the Tonsil. *Med. News, February 2, 1889.*

THE author remarks upon the rarity of primary sarcoma of the tonsil.

A case occurring in the author's practice is recorded, occurring in a woman of forty-five, commencing with pain on deglutition, and slight swelling and redness of the tonsil, resembling a mild case of tonsillitis. Three weeks later there was a sloughing fissure in the tonsil, containing greyish, pultaceous, foetid matter; later on the anterior palatine fold became infiltrated, shiny, thickened, and greyish red, having a zone of deeper redness as a margin. The tonsil itself never, in the course of the disease, became large. The appearance of the anterior palatine fold resembled gummatus inflammation, especially when a small white spot appeared, which rapidly increased in extent, and ended in great loss of tissue of the palatine arch, bounded by considerable œdema. A stage of quiescence now followed. Some weeks after, a velvety mass of tissue was noticed behind the posterior palatine fold, extending towards the Eustachian tube, growing rapidly, and sending out prolongations over the pharyngeal wall, and movable upon it. The mass spread so as to seriously encroach upon the pharynx, and destruction and sloughing followed. A stage of abeyance succeeded to this, then there was re-development in the pharynx and palate, fresh growth and sloughing, until the hard palate was reached, when the process was arrested. The lower portion of the growth began to interfere with the movements of the base of the tongue and epiglottis, and after eight months the upper end of the growth began to interfere with respiration through the right nostril. After six or seven months the sides of the tongue were implicated; it also involved the gums, and the mucous membrane of the cheek; afterwards the submaxillary gland, and the lymphatic glands of the side of the neck. Deglutition and respiration towards the end became very painful, at about eight or nine months, emaciation and pain were marked. Microscopical examination proved the growth to be a round-celled sarcoma.

The author appends to the description of his case a bibliographical

review of published cases, of which there appear to be only some nineteen or twenty.

R. Norris Wolfenden.

JUHEL-RÉNOY.—**Syphilitic Gummata of the Tonsil.** *Archives de Laryngologie, May, 1889.*

GUMMATA of this region are manifested by deceitful appearances, not only from the insidiousness of onset, but also from the fact that the condition may closely resemble diphtheritic or scarlatinal angina. Contrary to the indolence usually manifested by tertiary syphilis of the palatine arches, gumma of the tonsil has an unusually active development, and the affection deserves the term "acute tertiary gummatus angina" (or better still "amygdalitis").

Joal.

ZISMAN, L. S. (Irkútsk).—**On Excision of Enlarged Tonsils.** *Proceedings of the Irkútsk (East Siberian) Medical Society, 1889, p. 10.*

THE author describes twenty-two cases of hypertrophied tonsils, observed by him during the last three years, and treated by excision, four of them referring to adults, the remainder to children, aged from three to nine. In all the operation was made painless by previously painting the fauces with a four per cent. solution of cocaine. It lasted usually a few seconds, never longer than half a minute. For a few days after, the patients were made to frequently gargle their throats with a solution of chlorate of potash. In one of the cases a rather alarming hæmorrhage from the wound occurred several hours after the operation, which, however, was ultimately arrested by ordinary means. In the other cases, parenchymatous bleeding was invariably trifling. The after course was apyretic, except in one case where, on the next day, slight fever occurred, which probably depended upon the use of an unclean instrument. Children are said to bear the operation "beautifully." The best instrument is thought to be Luer's tonsil guillotine, its advantages being: (1) it permits the operator to act with one hand, while the other is occupied with depressing the tongue by means of a rectangular spatula; (2) its fork drags the gland into the ring before the excision (and not during the latter, as in other instruments of similar kind), which enables the operator to remove the gland most thoroughly; (3) the instrument can be easily taken to pieces, which allows it to be kept in the most cleanly condition.

Pointing to manifold serious symptoms and complications caused by hypertrophied tonsils (including tendency to frequent and obstinate catarrhal and follicular anginas, danger of lethal suffocation on supervening diphtheria, or scarlatinal sore throat, etc.), Dr. Zisman emphatically recommends the payment of more attention to the affection than is bestowed at present, and resort to radical treatment as frequently as possible, the best plan being excision. As to all other methods proposed, such as daily rubbing powdered soda into the glands, frequent painting them with nitrate of silver, repeated scarifications, insertion of sharp-pointed pieces of solid nitrate of silver or chromic acid paste, etc., they are regarded by Dr. Zisman as almost useless, and certainly quite unreliable procedures.

Valerius Idelson.

McBURNEY.—Syphilitic Perforation of the Hard Palate; Closure of the Opening by a Plastic Operation. *New York Medical Journal*, January 26, 1889.

SUCCESSFUL operation, voice being perfectly restored. Barclay J. Baron.

CLAIBORNE, J. H. (New York).—Papilloma in the Fauces. *New York Med. Journal*, February 16, 1889.

A GROWTH attached to the right tonsil, and removed with the ordinary polypus snare. R. Norris Wolfenden.

LAVRAND (Lille).—Chronic Œdema of the Eyelids, Consecutive to Repeated Facial Erysipelas of Pharyngeal Origin. *Société Française de Laryngologie*, May, 1889.

THE author related notes of a case of this kind occurring in a child fifteen years of age. Examination of the eyes revealed no explanation of the phenomenon, and it was concluded that the repeated facial erysipelas, which had occurred two and three times a month for three years, originated from the naso-pharyngeal region, extending through the lachrymal passages. The patient presented the typical facies of hypertrophy of Luschka's gland, but was not œdematous. The nasal fossæ were almost entirely obstructed by hypertrophy of the inferior and middle turbinated bodies, some air, however, passing through. The palatine tonsils were not abnormal, the mucous membrane of the buccal pharynx was red and thickened. The thickened arch of the palate contributed to the formation of a ring of thickening, which scarcely permitted the finger to pass behind it. Luschka's gland was increased in size—soft and friable. Treatment consisted in naso-pharyngeal irrigations, gargles, and internal use of cod liver oil. From December 1 to March 16 only a single erysipelatous attack occurred. The author concluded that it was the posterior naso-pharyngeal space which was here at fault, forming the point of origin of the inflammation with its soft, friable mucous membrane, and not the smooth nasal mucous membrane, where there was no sign of ulceration visible. He advises, in cases of repeated facial erysipelas, that the nasal fossæ and pharynx should always be carefully examined and locally treated. Joal.

MAURIN.—Primary Gangrenous Angina. *Archives Générale de Médecine*, July, 1889.

GANGRENOUS angina as a secondary phenomenon in the course of infectious conditions is well known, but primary gangrenous angina has been much discussed, and its definite occurrence is not yet agreed upon. M. Maurin relates two cases of gangrenous angina, which he considers to be primary, one observed by himself, the other by M. Vidal. In each of these cases the patient was an adult, attacked during perfect health with sore throat; a few days afterwards, without any premonition, a grave general condition supervened, with great fever and intense cephalalgia. At this time the throat presented, at the level of the tonsil, a whitish-grey plaque, which was adherent, and which, in a few days, gave place to deep,

irregular, anfractuons ulceration. Both cases ended in cure. There are only ten cases of primary gangrenous angina recorded, three of which occurred in infants and seven in adults of from twenty to thirty years of age. Of these ten cases, four terminated fatally. Five times the gangrenous patch was limited to the tonsil, and five times it was diffused, extending to the pharynx, arch of the palate, and buccal mucous membrane. The pathogenesis of these rare varieties of angina is not certain. It seems certain, however, that is a microbic disorder, but the micro-organism has not been discovered. It is possible also that the grave general phenomena observed in these cases may be determined by gastric or intestinal absorption of septic products.

Joal.

DEHAVAN.—Adenoid Hypertrophy in the Pharynx ; A New Instrument for its Removal. *The New York Medical Journal*, January 26, 1889.

THE instrument in question, which is a modification of Loewenberg's forceps, was shown to the New York Clinical Society. Barclay J. Baron.

RAULIN.—A Case of Ulcerative Tuberculosis of the Pharynx. *Poly-clinique du Dr. Moure*, July, 1889.

IN this case the pharynx was ulcerated, the left edge of the epiglottis was destroyed, the arytenoid region was slightly œdematous, but the superior and inferior vocal cords were healthy.

Joal.

FRAENKEL, B.—Syphilitic Stricture of the Pharynx. *Laryngologische Gesellschaft zu Berlin*, Meeting May 10, 1889.

THE author showed a case in a girl seventeen years of age. The constricting membrane was so extensive that only the finest probe could be introduced through it. When the membrane was divided, the epiglottis appeared as a bean-like tumour. He also showed a patient *with osseous occlusion of both choanae*.

VANDERPOEL, S. O. — Pharyngeal Mycosis. *New York Med. Journal*, February 9, 1889.

Oidium albicans is the most common form of parasite appearing in the mouth ; less common are *Nigrities lingua*, *Mycosis sarcinica*, *Aspergillus mycosis*, and *Mycosis leptothrix*. Under the term, "black tongue," two different affections have been described, one an epidemic erysipelatos disorder, the other a parasitic, black, pigmentary disease, seated on and around the hypertrophied filiform papillæ, seen mostly in dyspeptics and hypochondriacs, and connected with faulty nutrition. In one highly nervous lithæmic patient under the author's care, the affection almost disappeared when the lithæmic symptoms were strongly marked. When they abated the patch of coal black fur grew in extent so as to occupy all but the tip and margin of the tongue.

Aspergillus mycosis is seldom seen in the throat, but not infrequently in the ear. *Mycosis leptothrix* occurs in two forms, diffuse and circumscribed. In the diffuse form the whole surface of the tongue is coated

with a shiny, milk-white mass, frequently sufficiently dense to hide the fungiform and filiform papillæ. In the circumscribed form white glistening points appear resembling follicular tonsillitis, except that the mucous membrane about them is not congested. The tonsils, faucial pillars, pharyngeal wall, and base of the tongue are the parts most liable to be affected. Hard, glistening, white-gray spots appear, arranged in groups or singly, forming little excrescences, adhering very firmly, and rapidly reappearing if removed by forceps. The symptoms are sensation of foreign body in the throat, dryness and stiffness of the throat during sleep, and hacking cough with expectoration. Sometimes there are no symptoms; in other cases efforts to dislodge the masses produce vomiting. The only method of treating these growths is to repeatedly apply the galvano-cautery knife, plunging it deeply into the mucous membrane, so as to reach the base of the growth. Bichloride, carbolic, acetic acids are ineffectual, and fused chromic acid is only partially successful. Mycosis is more frequent in women than in men, and occurs mostly between the ages of twenty-eight and thirty-five. While quickly recurring on the original site, new foci develop but sluggishly. The diagnosis from diphtheria is easy; from follicular tonsillitis it is distinguished by absence of fever and local inflammation, and difficulty of removing the exudation. It may be confounded with concretions which early on are soft (containing leptothrix, epithelium, chalk globules, cholesterine, &c.), or if old, are hard and chalky. If soft, these are easily expressed, and do not recur.

R. Norris Wolfenden.

JOAL (Mont Dore).—Etiological Study of Œsophagismus. *Rev. Mens. de Laryngologie, May, 1889.*

THE author relates observations of nine patients suffering from œsophagismus, who have been cured by treatment of concomitant intranasal conditions, and concludes that between the two affections there is a relation of cause and effect. Œsophageal spasm may also arise in diseased conditions of the throat, or result from hypertrophy of the palatine tonsil: it can also originate from irritation of the tonsil, and the author cites a case of œsophageal spasm produced from cauterisation of the lingual adenoid masses. Disorders of the naso-pharynx can also determine œsophagismus, but most frequently the spasmodic accidents have for their point of departure excitation of the erectile tissue of the nasal mucous membrane. Œsophagismus ought, therefore, to take its place amongst the neuropathies of nasal origin, along with asthma, cough, vertigo, migraine, &c. The author also publishes observations showing that hypertrophic rhinitis is intimately connected with dysphagic symptoms; and this rhinitis may be derived from local or distant affections. Among the latter he mentions affections of the stomach, intestines, and genital organs, which in this manner become etiological factors in the production of œsophagismus. The author remarks that hysteria cannot have any influence as a predisposing cause, for, of nine patients observed by him, eight belonged to the masculine sex, and presented no sign whatever of any hysterical condition. He draws attention to an interesting point, namely, that hypochondriasis frequently accompanies œsophagismus with-

out having any causal relation to it. M. Joal thinks that these two nervous conditions are quite independent of each other. Joal.

OSGOOD, H. (Boston).—**A Peculiar Form of Œsophagismus.** *Boston Med. and Surg. Journal, April 25, 1889.*

IN the author's patients there was sudden, often intense, pain, and sense of constriction in the epigastrium, radiation of the pain, slight regurgitation if the attack occurred at table, with arrest of food at the cardiac orifice, and perfect consciousness on the part of the patient of this arrest, the food, after an instant's delay, passing on into the stomach. The attacks varied in intensity, frequency, and duration in the author's patients, and there was invariably some chronic form of disturbance of the mucous membrane at some point removed from the locality to which the pain was referred. The ailment does not affect children, but adults between twenty and fifty. The attacks occur in irregular manner, and at unmethodical intervals, and their intensity is sometimes slight, sometimes excessive. The distress was always located beneath the xiphoid cartilage as high as its union with the gladiolus, and may radiate into the pharynx, and into one or both ears, being in the latter case located probably in the Eustachian tubes, though referred to the tympanum. There is abundant salivation, and a sense of impending suffocation or death. Pain is sometimes referred to the right chest, mamma, and nipple, and in extreme cases is felt in the back. In the author's patients there existed at all times a difficulty in swallowing gaseous drinks (beer, champagne, apollinaris, etc.). A momentary constriction was felt at the lower end of the œsophagus. In no cases were the attacks confined to meal hours, but appeared in the most capricious manner at any time, as, for instance, in stooping, turning in bed, sitting up, walking, laughing, coughing, sneezing, etc., and without any apparent reason. The suddenness is electric, coming like a grip upon the lower end of the œsophagus, and at once causing radiation of pain. The pains being radiated so extensively it is probably the pneumogastric which is concerned. The author gives an interesting summary of the views of various authors as to the pathology and physiology of œsophagismus, and concludes that in his cases there was a high degree of hyperæsthesia, a reflex irritability of the sensory nerves, not extending to or only causing slight contraction of the muscular tissue of its locality. The sensation suggests a mechanical condition which probably does not actually exist.

As to treatment, attention to the pharynx has deprived the œsophagus of its habit of spasmodic pain so long as the throat remained in good condition. Intestinal catarrh has been relieved by nitrate of silver, and the secondary current applied to the epigastrium for ten minutes two or three times weekly, has assisted in diminishing the liability to recurrence of the distress. Taking carbolic acid in any form of effervescing drink will lead to eructations, which will relieve the sense of constriction. The eructation of air obtained by this means, or causing the patient to suck in air until the stomach is distended, is always sufficient to terminate the trouble, and shows that (according to the author) the forcible distension

of the gullet has overcome a deadlock in the nervous currents of this tube, or a localised vasomotor spasm. The galvanic current also sets the nerve currents in motion. Musk, belladonna, opium, etc., are beneficial upon some occasions.

In the discussion which followed the reading of this paper at the *Boston Society for Medical Improvement*, Dr. F. I. KNIGHT remarked upon the interest of the paper, and regarded it as a valuable suggestion that these somewhat indefinite symptoms may be due to spasm of the œsophagus. Cases are frequently recorded in which there is spasmodic stricture of the œsophagus due to reflex action from cancer of the stomach. The local use of electricity by putting the pole into the œsophagus is attended with considerable danger, and may cause fatal syncope.

Dr. LANGMAID had never met with a case in which pain in the ear was complained of, though a feeling of fulness extending from the epigastrium to the throat, and especially localised near the cricoid cartilage, was often met with in local faucial derangement, alimentary or uterine derangement, hysteria or nervous derangement, a weakened heart or diseased blood-vessels. He could not believe that œsophageal spasm was common unconnected with swallowing. In any case where the bougie is not easily passed he suspects organic stricture or sacculated œsophagus.

Dr. H. M. RICHARDSON had seen one case in which difficulty of swallowing, with spasms of pain at irregular intervals were the prominent symptoms. Between the attacks there was no difficulty of deglutition. After one unusually severe spasm, lasting a week, it was impossible to pass the finest probang into the stomach. The patient died of malignant disease a few weeks after. Auscultation gave no information as to the seat, size, or nature of the œsophageal stricture.

R. Norris Wolfenden.

ALSBERG.—*Carcinoma of the Œsophagus.* *Aerztlicher Verein in Hamburg, Meeting June 18, 1889.*

THE author showed a specimen of œsophageal cancer, in which the posterior laryngeal wall had been perforated. He had performed œsophagotomy on account of the stenosis, which was so great as not to allow the introduction of a probe. Some months later the patient manifested stenosis of the larynx. The patient survived the first operation eighteen months, the second seven months. The case proves that in cases of high-seated cancrroids, œsophagotomy must be preferred to gastric fistula. No case operated upon up to the present has survived the operation for so long a time. The specimen showed that the neoplasm, commencing from the second vertebra, had destroyed the anterior surface of the vertebra, and the wall of the œsophagus had caused there a cavity with some fistulas. The patient died from cachexia. The author also showed ten drawings of the laryngoscopic appearances determined by Michael, demonstrating the progress of the disease.

Michael.

LUTZ, F. J. (St. Louis).—*Gastrostomy, Illustrated by a Case and Specimens.* *Weekly Med. Rev. June 29, 1889.* (A paper read at the Missouri State Medical Association, May, 1889.)

THE gastric fistulas are best closed by means of well-fitting rubber tubes, continuously worn. It is also absolutely necessary to salivate the food before it is introduced into the stomach. The author related the notes of a case in which gastrostomy was performed for œsophageal stricture, supposed to be due to cauterization. The patient, a young man (nineteen years old at the time of operation) has been for seventeen months fed through a fistula, and has progressed satisfactorily. A specimen was shown from a patient who had been fed through a gastric fistula for ten weeks, while suffering malignant stricture of the œsophagus. The epitheliomatous growth which encircled the œsophagus at the junction of its middle and upper third, had caused a perforation into the trachea, causing an opening two inches long and one-and-a-half inches wide. The right recurrent nerve was involved, and there was paralysis of the right vocal cord during life. A perforation had also occurred into the pleural cavity on the right side.

R. Norris Wolfenden.

SCHULZ, NIKOLAI E. (Moscow).—**Foreign Body in an Infant's Gullet.** *St. Olga's Hospital for Children Reports*, 1888, p. 227.

A GIRL, aged fourteen months, had swallowed a bone button, about one and a half centimètres in diameter, which got fixed in the upper portion of her œsophagus. On the fourth day after the accident the author, after prolonged efforts, ultimately succeeded in reaching the foreign body with his forefinger, and extracting it by means of curved forceps.

Valerius Idelson.

IVANOFF, IVAN S. (Kostroma).—**Foreign Body in the Œsophagus.** *Proceedings of the Kostroma Medical Society*, September 29, 1888, p. 1.

AN elderly gentleman, a habitual hard drinker, while eating dried fish (sandre), managed to swallow a largish gill bone. The latter became fixed in the upper part of his gullet, one of its ends piercing the œsophageal wall on the left side. An abscess developed in course of time, the bone ultimately reaching the left common carotid artery, and causing an enormous hæmorrhage ending in death.

Valerius Idelson.

WAHL V. (Dorpat).—**Œsophagotomy for Artificial Teeth Swallowed.** *St. Petersburg Med. Wochenschr.*, 1889, No. 21.

THE patient, forty-nine years old, had swallowed a set of artificial teeth. The probe showed that the foreign body rested under the cricoid cartilage. Œsophagotomy was performed, and cure resulted.

Michael.

NOSE AND NASO-PHARYNX.

RICE, C. C. (New York).—Antiseptic Nasal Surgery. *New York Med. Journal*, March 2, 1889.

NASAL surgeons have paid too little attention to nasal antiseptics. Enquiries addressed by the author to the members of the American Laryngological Association elicited the fact that several did but little nasal surgery, because there were but few cases requiring surgical interference, a few used the galvano-cautery only, and were not favourably disposed towards cutting and drilling operations upon the nasal structures. The galvano-cautery, however, is a perfect antiseptic application, the wounds inflicted upon the nose are small. It is difficult to obtain complete antiseptics of the nasal cavities, by reason of their conformation, and the conditions favourable for development of micro-organisms exist there, viz., heat, moisture, and oxygen. In considering the necessity for nasal antiseptics, the question to be answered is, "Do patients after operations upon the nasal septum or "turbinate" tissues exhibit symptoms which may be properly attributed "to absorption of septic material?" The constitutional symptoms which follow operations in the nasal cavities are neither severe nor long continued, even where no antiseptics are employed. They occur in a mild degree in about twenty per cent. of patients operated upon. Sometimes they are severe. Chills, rise of temperature, headache, pains through the eyes, nose, and forehead, in the back and limbs, general *malaise*, nervousness and irritability, are the constitutional symptoms usually met with. They are attributable to shock and reaction, and vary much with the patient's general condition of health, extent of the operation, hæmorrhage, amount of pain inflicted, and length of time of operation. Shock is greater when the nasal septum is wounded than when soft tissues are injured. All the symptoms due to shock are, however, over within twenty-four hours. The author relates one case of severe blood-poisoning after an intranasal operation, and has heard of other serious cases.

He believes it desirable to follow some routine method of securing antiseptics in nasal operations. Thorough cleansing of the nasal cavities is essential for some days before the operation, performed with saline or alkaline tepid *douche* first, and followed by an antiseptic atomised solution, of which the best is peroxide of hydrogen, containing two per cent. of cocaine in solution. Cleansing solutions must be used in large quantities—quarts. A good plan is to use a weak solution of bichloride of mercury (1—10,000), so that a pint can be used, and to introduce it posteriorly by a post-nasal irrigating tube. After washing out the nasal cavities, these should be thoroughly dried with absorbent bichloride of mercury cotton. The instruments used should be boiled over a Bunsen burner before and after use. Tampons in the nose allowed to remain twelve to forty-eight hours are the chief cause of constitutional blood-poisoning. They are also not necessary, for the bleeding will in most cases cease in a few minutes.

Plugs also lead to accumulation of secretions. It is best to admit air through the nostrils, and keep them clean with antiseptic washes.

R. Norris Wolfenden.

POTTER (Buffalo).—**Membranous Rhinitis.** (*Med. Soc. of the State of New York Meeting, February 1889.*) *New York Med. Journal, February 9, 1889.*

Two per cent. of the author's cases of acute rhinitis had been membranous. There was no assignable cause, and there were no systemic disturbances. It began like any other acute rhinitis, but about the third day there was a white, tenacious coating, and the parts under it bled upon removal of the coating. It resembled diphtheritic membrane in many respects. The disease continued three weeks whether treated or not. The drift of opinion was in favour of regarding the disease as an expression of some constitutional condition. [See paper by the author on Membranous Rhinitis in the JOURNAL OF LARYNGOLOGY for March, 1889.]

Dr. C. C. RICE agreed in regarding the disease as constitutional.

Dr. POOLEY spoke of a membranous conjunctivitis resembling diphtheritic exudation, but quite mild in character.

Dr. DOUGLAS suggested that these might be among the "walking cases" of diphtheria.

Dr. DE LA VERGNE instanced a family, three members of which had diphtheria, and the fourth had a membranous rhinitis which filled the nares, recurred within two days after removal, and resisted treatment by astringents.

Dr. POMEROY had seen similar cases in asylums. R. Norris Wolfenden.

SCHUCHARDT (Stettin).—**The Nature of Ozæna, and some Remarks on Epithelial Metaplasia.** *Volkmann's Sammlung Klinischer Vorträge, No. 340.*

THE author is not satisfied with the conceptions of the nature of ozæna at present put forward by different authors. He originates a new theory of the cause of the fœtid odour of this disorder, and it must be said that his views are very convincing. He says that it is always the case that if cylinder epithelium is changed into plaster epithelium the secretion of a mucous membrane becomes fœtid. Thus old otorrhœas and catarrhs of the uterus give a fœtid secretion. He has found microscopically that the nasal mucous membrane of patients with ozæna is rich in plaster epithelium, and he also finds it in the secretion. It is possible that the fœtid nature of some cancrroids of the mucous membranes and bronchitis putrida can be explained in the same manner.

Michael.

NOQUET (Lille).—**Papilloma of the Right Nasal Fossa.** *Société Française de Laryngologie, May, 1889.*

PAPILLOMA is rarely met with in this region, and the author described a case, the only one he has ever seen, observed by himself. The patient was thirty-seven years of age, and had a soft tumour of the size and shape of a mulberry, dark red, soft, and easily bleeding, entirely obstructing the

entrance of the right nasal fossa. It was attached to the base of the nasal fossæ at the anterior extremity by a thick pedicle, and was removed with the cold wire loop. Microscopically it proved to be a true papilloma, assembling the cauliflower growths of the genital organs. Joal.

THORNER (Cincinnati).—**Hæmatoma of the Septum Narium.** *Med. News, May 4, 1889.*

A CASE in which occlusion of both nostrils occurred from a purplish-red tumefaction of both sides of the cartilaginous septum, caused by a blow on the nose. An incision into the tumefaction allowed the escape of about a drachm of blood, and collapse of the swelling, which, however, reappeared. The patient, on his own responsibility, poulticed the nose, and converted the hæmatoma into an abscess, opening which caused evacuation of a good deal of pus. A perforation of the cartilaginous septum was left. After cure, a thickening on the septum, no doubt an enchondrosis, remained, due to simultaneous perichondritis. The author says that hæmatoma is not frequent, and is nearly always caused by direct traumatism. If surgical measures are not resorted to, purulent degeneration of the contents of the sac occurs, and perforation of the septum generally results. Perforations of the septum occur in a number of conditions, independently of syphilis, and cannot be regarded as certain evidence of specific taint.

R. Norris Wolfenden.

CHEATHAM, W. (Louisville).—**Diseases of the Eye, Ear, Throat, and Nose.** *American Practitioner, Mar. 2, 1889.*

IN the course of a review of his work in private for two years, comprising over five thousand patients, the author makes some interesting observations. He finds hot applications, external and internal, with the salicylates and turpentine, the best treatment for acute tonsillitis, which he believes to be generally of rheumatic origin, or due to improper feeding, such as eating sweets, &c. Atropine pellets and protiodide of mercury taken immediately on the appearance of the first symptoms may ward off an attack of acute follicular tonsillitis. Where ridges of bone project from the nasal septum and produce nasal stenosis, the author uses burs with long shanks, which are attached to the dental engine, and with these he goes under the mucous membrane, drills out the bone to a thin shell, and crushes it, thus preserving the periosteum, and leaving a very small cicatrix. The method is much less painful than saws and other proceedings, and is also more effectual.

R. Norris Wolfenden.

WAGNIER (Lille).—**A Modification of the Customary Employment of the Galvanic Loop for Polypi Inserted at the Posterior Extremities of the Nasal Fossæ.** *Société Française de Laryngologie, May, 1889.*

THE author has three times successfully employed the following device: The tumour being partially seized with the galvanic loop with rather large wire, the loop is tightened, and the current passed for an instant *without traction*, so as to obtain adherence between the metallic wire and the tumour. He continues to press the wire without cutting the

tumour, until a sudden traction movement detaches the polypus from its insertion. This insertion being usually by a thin pedicle to the posterior extremity of the middle turbinated body, and these tumours having generally a more fibrous structure than the ordinary mucous polypi, the method appears likely to yield good results in practice. Joal.

WRIGHT, J. (New York).—**Chronic Lymphatic Œdema of the Upper Lip, coincident with Intranasal Pressure.** *New York Med. Record*, July 20, 1889.

THE case of a child whose upper lip was two or three times its natural size, and who had a similar enlargement of the left cheek. The lip swelling gradually disappeared with the cure of an intranasal catarrh, especially of the left side, and removal of a portion of hypertrophied middle turbinated body. A month or so after the operation, and when the lip swelling had already considerably diminished, the patient was attacked with erysipelas, and the residue of the swelling disappeared.

The author draws attention to the resemblance between this case and the angio-neurotic œdemas described by recent authors, and to the cases of cythema and erysipelas which Major lately described as dependent upon intranasal pressure.

R. Norris Wolfenden.

FOSTER, H. (Kansas City).—**Obstruction of the Nares causing Nervousness, with Report of Cases.** *Weekly Med. Rev.*, July 6, 1889.

THREE cases in which along with nasal polypi there existed a general condition of extreme nervousness, loss of memory (in one case), etc. All the symptoms were cured by the removal of the polypi and cure of the intranasal stenosis.

R. Norris Wolfenden.

SOKOLOFF, ALEXIS A. (Moscow).—**Foreign Bodies in the Nose.** *St. Olga's Hospital for Children Reports*, 1888, p. 206.

THE author relates six cases of extraction of foreign bodies from the nasal cavities in children. One of them reports a boy, five years of age, with offensive, blood-stained, purulent discharge from the left nostril, of three years' standing. Rhinoscopy detected the presence of a foreign body, as well as some ulceration, with abundant granulations. The extraction was rather troublesome. The foreign body proved to be a piece of friable and tumefied wood measuring $1\frac{1}{2}$ centimetres in its largest diameter. The operation was followed by a rapid disappearance of all the symptoms. In another boy aged eight, the right nostril was found to contain a tin tack, covered with rich incrustations, which had been introduced four months previously, and caused local ulceration. Of the remaining children, in one a piece of paper, in another a piece of cork, in a third a sunflower seed, and in the fourth a half of the seed's shell, were found and extracted without any trouble.

Valerius Idelson.

GAREL.—**A Case of Rhinolith.** *Ann. des Mal. du Larynx, etc.*, July, 1889.

THE rhinolith originated from a cherry-stone, and before it was extracted it was necessary to break the stone.

Joal.

LUBET-BARBON.—Adenoid Vegetations of the Naso-Pharynx. *Gaz. des Hôp.*, June, 1889.

AN excellent review of the present state of our knowledge of this question. Joal.

COUETOUX.—Adenoid Vegetations of the Naso-Pharynx. *Ann. des Mal. du Larynx, etc.*, August, 1889.

IN the course of an interesting discussion of the symptoms and treatment of this affection the author insists upon salivation or pyalism as a symptom which he has found especially associated with the presence of adenoid growths. Joal.

ROLLAND (Montreal).—Dilatation of the Sphenoidal Sinus from Accumulation and Retention of Liquid. Consecutive Obstruction of the Posterior Nasal Fossæ. *Société Française de Laryngologie*, May, 1889.

THE case of a lady, twenty-three years of age, who complained of nasal obstruction, violent cephalalgia, loss of memory and insomnia. There was atrophy of the inferior and middle turbinateds on the left side, and behind could be seen a rounded resistant osseous tumour, partially obstructing the nasal fossæ. On the other side, the turbinateds were not so atrophied, and the tumour was not so visible.

On posterior rhinoscopy, both posterior nasal fossæ were seen to be completely obstructed by the same obstacle, the upper portion of which proved on examination by a probe to be hard, and the lower quarter appeared to possess a certain degree of elasticity. The author diagnosed dilatation of the sphenoidal sinus, and made an opening at its left lower part, with the electric motor. Aqueous liquid flowed out drop by drop, and not in a jet as is seen in cephalo-rachidian fluid. After this treatment the permeability of the nasal fossæ was partially re-established, the head pains disappeared, and the patient's general condition improved greatly. Joal.

LARYNX, &c.

FRENCH.—A Photographic Study of the Laryngeal Image during the Formation of the Registers in the Singing Voice. *The New York Medical Journal*, January 26, 1889.

THIS paper is an attempt on the part of Dr. French, whose industry as a laryngeal photographer is so well known, to clear up the vexed question of the vocal registers.

The conclusions that he draws from hundreds of photographs of the larynx in the act of uttering certain notes are as follows:—

1. That protrusion of the tongue does not alter the laryngoscopic appearances.

2. That in the female there are three registers. This renders two changes necessary in the mechanism of the vocal cords, which changes are always accompanied by changes in the quality of the voice. The lower break occurs at or near F sharp, treble clef, first space; and the upper break an octave higher than this note. The change of mechanism consists of a shortening of the vocal bands, an appearance of an increase in their tension, and a change in the shape of the chink of the glottis, and it is usually accompanied by a backward movement of the epiglottis.

The change in the shape of the chink at the lower break consists usually of a wider opening of the ligamentous portion of the glottis, and partial or complete closure of the cartilaginous portion.

At the upper break the chink may simply be reduced in length and width, or a part of the ligamentous and all of the cartilaginous portion of the glottis may be closed.

3. That in male voices possessing the falsetto range there are two registers, the change from the chest to the falsetto usually occurs somewhere between C sharp bass clef, first line above stave, and the F sharp above.

The change in the mechanism consists usually of a sudden shortening of the vocal bands—though occasionally they are increased in length—an appearance of increased tension, and an alteration in the shape of the glottic chink. The edges of the vocal bands may be brought into opposition in front or behind, or both in front and behind, or the chink of the glottis may be open in its entire length, in which case the shape is altered, but the area of the space between the vocal bands is about the same as is necessary for the production of the note before the break.

The falsetto tones are, therefore produced by stop closure and change in the length and tension of the vocal bands, or by change in their length and tension without stop closure.

Barclay J. Baron.

VINEBERG, H. W.—*Laryngismus Stridulus and Eclampsia, associated with Rachitis.* *New York Academy of Medicine; Section of Pediatrics, March 14, 1889.*

A CASE of a child nine months old. No improvement followed the use of calomel, cod liver oil, or phosphorated oil, but the attacks subsided under ten grain doses of bromide of potash given twice a day.

R. Norris Wolfenden.

NATIER.—*Lupus of the Face, with Propagation to the Nasal Fossæ the Gums, the Palatine Arches, the Pharynx and Larynx.* *Poly-clinique du Dr. Morel, July, 1889.*

IN this case the epiglottis was almost completely destroyed, but deglutition was not interfered with.

Joal.

VOLTOLINI (Breslau).—*First Operations in the Larynx under Electric Light.* *Monatsschrift für Ohrenheilk., etc., May, 1889.*

IN a patient with tubercular tumours of the posterior laryngeal wall the author has applied the galvano-cautery whilst the larynx was

illuminated by electric light in the manner described by the author a short time ago. In deep-seated affections this method has the advantage, that it is easier to find the place exactly which shall be operated upon than by the usual method.

Michael.

HEYMANN, LUBLINSKI, SCHADEWALDT, FRAENKEL, MARTIUS.—Various Cases exhibited at the Laryngological Society of Berlin Meeting, *April 5, 1889.*

P. HEYMANN showed a syphilitic girl, thirteen years of age, with stenosis so great as not to admit the introduction of a pencil. Thermo-cautery has been applied without any effect. Dilatation should now be tried.

LUBLINSKI showed a case of *hypertrophic lues of the nose.*

SCHADEWALDT showed a patient with *stenosis of the larynx*, following typhoid fever. One of the arytenoid cartilages was destroyed by necrosis.

B. FRAENKEL showed a specimen of laryngitis phlegmonosa.

MARTIUS.—*On two remarkable Cases of Paralysis of the Vocal Bands.*

(1) A patient, thirteen years old, had diphtheria, followed by gangrene of the soft palate and otitis media. Twelve days later, suddenly deglutition was affected, and discharge of fluid food took place by the nose. On the sixteenth day paralysis of the right vocal cord occurred, followed after some hours by paralysis of the left vocal cord, the affection being posticus paralysis. Some hours later sudden death occurred from paralysis of the heart. The post-mortem examination showed myocarditis, endocarditis, pachymeningitis, and perineuritis of the left vagus nerve.

(2) A patient, forty-eight years old, had difficulty in swallowing, pain in the cardia, and hoarseness. The laryngoscope showed paralysis of the left vocal cord. Sudden death occurred. The post-mortem examination showed cancrroid of the œsophagus, purulent infiltration of the mediastinum, and carcinomatous destruction of the vagus nerve. Michael.

RUAULT (Paris).—Catamenial Laryngeal Hæmorrhages. *Société Française de Laryngologie, May, 1889.*

THE author related the case of a patient, thirty-nine years of age, married, and the mother of a child of eleven, neurotic, non-tubercular, free from cardiac disease, not hæmophilous, who for three years expectorated for some days after the cessation of the menses small quantities of blood. For some months these hæmoptyses had occurred for some days before, and no longer after, the catamenial period. Sometimes the patient also expectorated slightly blood-stained sputa in the intervals between the periods, but this seldom occurred, while the hæmoptyses never failed to appear before or after the menstrual epoch. Laryngoscopical examinations were frequently made, and for more than a year the patient had been treated at the clinic, “des sourds-muets,” for sub-epithelial or sub-mucous hæmorrhages of the vocal cords.

Ruault thought that in this case the sanguineous fluxions were of reflex utero-ovarian origin. He remarked that many of the cases published under the denomination, objectionable to him, of hæmorrhagic laryngitis have occurred in pregnant women (Fränkel, Strübing, De la Sota), or after

child-birth (Stepanow), and he recalls an observation of Schæffer's where at the moment of the appearance of laryngeal hæmorrhage during a catamenial period, the catamenia were arrested. He also recorded the fact that his patient, without presenting absolute signs of hysteria, was, however, probably hysterical, as evidenced by her being very emotional, laughing and crying easily, and presenting marked anæsthesia of the pharynx.

Joal.

MOURE (Bordeaux).—Laryngeal Hæmorrhage. Paralysis of the Constrictor Muscles. *Société Française de Laryngologie, May, 1889.*

THE author referred to the intimate relations existing between the genital organs and the larynx, first described by Bayer at the London Congress in 1881, and to which the author has himself previously drawn attention. He related the case of a young woman of thirty, neuropathic, and who had paralysis of the constrictors of the larynx, especially of the arytenoid muscles, and who also presented a veritable sanguineous tumour of the right vocal cord in its posterior third, and ecchymoses of the left vocal cord. The paralysis yielded to direct electrification of the cords, and the other phenomena disappeared spontaneously and nearly completely; but on the appearance of the catamenia the aphonia re-appeared from renewed paralysis, and a blood effusion occupied the whole surface of the vocal cords. The latter again disappeared spontaneously, and the paralysis yielded again to electrical treatment. At the next menstrual epoch there was expectoration of sanguineous sputa and laryngeal hæmorrhage. In the intervals between the catamenial periods the treatment employed was douches, bromides, and vocal exercises. For some months the patient has spoken well, and has had no return of the symptoms, which had dated from many years back.

Joal.

GAREL (Lyons).—A Case of Laryngeal Ictus. *Société Française de Laryngologie, May, 1889.*

THE author related the case of a man of forty-two, of gouty temperament, and who had already had four crises of laryngeal ictus. The attacks began with a sensation of tickling in the larynx, which provoked a dry nervous cough of long duration. The face became congested, the patient felt suffocated, clonic convulsions of the upper limbs occurred, which ended in loss of consciousness and pallor of the face. After the crisis, the arms were still animated with convulsive movements, and the patient remembered all that had passed. There was no cry at the commencement of the attack, no biting of the tongue, and no involuntary micturition. There was neither sugar nor albumen in the urine. There was no affection of the ears, nose, or heart, and no tabetic symptom. Laryngoscopically the vocal cords appeared white.

This case is similar to that published by Weill, of Lyons, who explains the ictus by a simple sensory excitation of the larynx, provoking an inhibitory and dynamo-genetic action upon the nervous system, without believing in the intervention of an asphyxiant element. Garel, however, remarked in his patient that the ictus occurred only when the asphyxia caused by coughing attacks had attained a certain degree, and sensory irritation of the larynx played only a secondary rôle.

Joal.

NATIER.—Œdema of the Vocal Cords; Ulceration of the Arch of the Palate on the Right Side in a Tubercular Patient. *Polyclinique du Dr. Moure, July, 1889.*

AN interesting observation, from the fact that the patient presented very pronounced œdema of the true vocal cords, although there were no other laryngeal symptoms characteristic of tuberculosis.

Joal.

AUDUBERT.—Dry Laryngitis. *Polyclinique du Dr. Moure, July, 1889.*

OBSERVATIONS upon a patient who had rhinitis and pharyngitis sicca, presenting at the same time a pale, shining, varnished looking, and wrinkled condition of the mucous membrane of the arytenoid region, an example of the "dry laryngitis" described by Moure and Hunter Mackenzie.

Joal.

TCHERNOFF, VASILY E. (Moscow). — Laryngitis Catarrhalis Traumatica. *St. Olga's Hospital for Children Reports, 1888, p. 18.*

A BOY, aged two, swallowed a mouthful of strong vinegar essence, which caused painful deglutition and vomiting on any attempt at swallowing solid food. On examination there were found intense congestion and swelling of the oral, faucial, and laryngeal mucous membrane. The latter was studded with punctiform extravasations, which were especially numerous on the epiglottis. Under the influence of narcotics (morphia, with aqua amygdal. amara), milk diet and such like means, complete recovery took place.

Valerius Idelson.

RICARDO-BOTEY.—Laryngeal Polypus of the size of a Large Nut. Endo-laryngeal Extirpation. *Rev. Mens. de Laryngol., June 1, 1889.*

THE tumour in question was a papillary teleangiectatic fibro-myxoma, which was removed with the galvano-cautery loop, and Fauvel's forceps.

Joal.

GOUGUENHEIM.—Dilatation in Stricture of the Larynx. *Soc. de Chirurgie, Mar. 15, 1889.*

THE author presented a patient, forty-three years of age, suffering from syphilitic stricture of the larynx, in whom he had accomplished remarkable results by gradual dilatation of the larynx performed during six months.

Joal.

KRAUSE (Berlin).—On the Results of the New Methods of Treatment of Laryngeal Tuberculosis. *Therap. Monatssch., May, 1889.*

THE author recommends the well known surgical treatment with curette-ment and application of lactic acid, as originated by him and Heryng. Of seventy-one cases thus treated, forty-three were cured or ameliorated. He relates in detail three cases in which the treatment was followed by very satisfactory results.

Michael.

LACOEARRET.—Gummatous Infiltration of the Right Ventricular Band. *Polyclinique du Dr. Moure, July, 1889.*

AN interesting observation, in that the condition in question was presented in a female, without any affection of the throat.

Joal.

CARTAZ (Paris).—**Laryngeal Affections in Late Hereditary Syphilis.**
Société Française de Laryngologie, May, 1889.

THE author related three cases, in patients of twelve, thirteen and a half, and twenty years of age, of late hereditary laryngeal syphilis. These cases are rare. Fournier has recorded about a dozen such cases, occurring at the ages of three, five, ten years and over, in which there had been no previous laryngeal affection. Cartaz has collected twenty-seven cases, comprising three previously unpublished. The ages at which these accidents occur, vary from three to twenty-eight, and girls are affected in the proportion of two to three boys, a proportion inverse to that indicated by John Mackenzie, in his work on the laryngopathies of congenital syphilis. The appearances in this form of laryngeal syphilis, do not differ from those of acquired syphilis. He however insists on the extremely frequent coincidence of syphilitic lesions of the throat, pharynx, arch of the palate, and epiglottis, the latter being especially the seat of tertiary syphilis. This predilection appears especially in hereditary syphilis, and the gravity of prognosis is increased in certain cases by the occurrence of cicatricial bands and malformations consequent upon ulceration.

Joal.

TCHERNOFF, VASIĬY E. (Moscow). — **Laryngitis Syphilitica.**
St. Olga's Hospital for Children Reports, 1888, p. 19.

A BOY of seven was admitted on account of complete aphonia, difficult breathing, and pain about the throat. On inspection a syphilitic condyloma was found in the anal region, while the laryngoscope revealed considerable congestion and swelling of the false and true vocal cords, a large-sized, greyish-white papula on the left true vocal cord, and a somewhat smaller patch on the right. An inquiry elicited that the boy, in common with other children of the same family, had contracted the infection from a syphilitic friend of his father. The treatment consisted in mercurial inunctions (Ung. hydrarg. cinereum, one gramme at a time; in all, fifty frictions), insufflations of calomel, and, later on, painting with a one or two per cent. solution of nitrate of silver, and the internal use of iodide of potassium. By the end of four months the boy was discharged, quite well (with normal larynx and voice, etc.).

The author points out that syphilitic affections of the larynx represent a very rare occurrence in children.

Valerius Idelson.

BESCHORNER.—**Diagnosis of Laryngeal Carcinoma.** *Monatssch. für Ohrenheilk., May, 1889.*

A LADY, seventy years old, suffering from hoarseness, had a tumour in the larynx. The microscopical examination of the removed neoplasm showed it to be a papilloma. Some time later the microscopical diagnosis of extirpated pieces was carcinoma. As the disease made no progress it was treated expectantly, but some time after tracheotomy was performed. There was not any change in the laryngeal condition for five years. The patient died from marasmus and paralysis cordis. The views of two different microscopists now diverge as to whether the specimen is carcinoma or a benign neoplasm.

Michael.

SCHMIDT, MORITZ (Frankfurt-on-Maine).—**Contribution to Laryngeal Surgical Casuistics.** *Langenbecks Archiv.,* *Bd.* 38, *Heft* 3.

1. *Carcinoma of the Larynx: total extirpation.*—The patient first seen on November, 1882, was hoarse for two years, and had experienced dyspnoea for some months. On both sides of the thyroid cartilage was a swelling as large as an egg. The laryngoscope showed swelling of the aryepiglottic folds. Incision was made of the abscess, and discharge of pus followed, but no necrotic cartilage was found. Tracheotomy was performed. The cannula could not be removed on account of the stenosis. Treatment with Schroetter's bougies remained without effect. In 1883, thyrotomy was performed, and as the examination showed that there was carcinoma, total extirpation of the larynx was performed. Cure resulted, but twenty-one months later recurrence took place in the pharynx, and death followed four months later.

2. *Carcinoma of the Larynx; extirpation of half the Larynx.*—A patient, forty-seven years old, had a cancrioid tumour of the right vocal cord. Anti-syphilitic treatment was without effect. Extirpation of half the larynx was done on May 7, 1886. Up to now (July, 1888) there has been no recurrence.

3. *Extirpation of half the Larynx for Cicatricial Stenosis.*—The tracheotomized patient showed marked stenosis. Extirpation of half the larynx was performed, and an artificial larynx applied. Up to now the patient is in good health.

4. The patient, sixty-two years old, showed infiltration of the right vocal band. Local treatment was without effect. Thyrotomy was performed, and extirpation of the cancrioid tumour accomplished (1867). Seven months later death followed from recurrence.

5. A patient, sixty-seven years old, exhibited cancrioid of the right half of the larynx. Thyrotomy and extirpation of the neoplasm were performed (1869). Some months later death occurred from recurrence.

6. A girl, three-and-a-half years old, had papillomata of the larynx. Thyrotomy was done, the growths extirpated, and the patient cured.

7. A boy, nine months old, had congenital papillomata. Thyrotomy was done, the growths extirpated, and cure resulted. In this case the cannula could not be removed.

8. A patient, five years old, with congenital papillomata, had thyrotomy performed, and the growths extirpated. Cure resulted. Michael.

WHARTON, H. R.—**Report of a Case in which a Large Headed Brass Shawl Pin remained in the Trachea for Ten Days, and was removed Seven Hours after Tracheotomy; Profuse Hæmorrhage from the Trachea, and Expulsion of a large number of Fibrinous Casts.** *Medical News,* April 13, 1889.

THE hæmorrhage probably resulted from a congested and inflamed tracheal mucous membrane, or from injury to the membrane by the foreign body. The fibrinous casts resembled those expelled in cases of croup, and were a very unusual feature in connection with foreign bodies in the air passages. The author discusses the question of treatment of foreign bodies in the air passages, and thinks that when the foreign body

occupies the larynx, if the dyspnoea be not urgent, it may be removed by laryngeal forceps in skilful hands. The use of emetics is of little service, and not free from danger. Inversion of the body is a dangerous proceeding unless tracheotomy has previously been performed, or the surgeon is ready to perform it if dangerous symptoms arise. If the foreign body is in the trachea or bronchus spontaneous expulsion is remote, and laryngotomy should be performed. If the danger is not extreme, tracheotomy, especially below the thyroid isthmus, is most satisfactory if the tracheal wound is made sufficiently large to favour expulsion of the body, or allow the surgeon to make satisfactory explanation, for the purpose of which Golding-Bird's tracheal dilator is the most serviceable. The body may then be removed by forceps.

R. Norris Wolfenden.

VIERHUFF.—Foreign Bodies in the Air Passages. *Petersburg Med. Wochenschr.*, 1889, No. 23.

A PATIENT, seven years old, suddenly became feverish, developed cough, and exhibited rhonchi in the right lung. It was believed that the case was one of catarrhal pneumonia. Ten days later a piece of wood, covered with greenish pus, was coughed out. The patient was now cured in one day. The patient related that he had inspired the wood some time previously.

Michael.

GANGHOFNER (Prag).—Fatal Bleeding from Erosion of the Arteria Anonyma after Tracheotomy. *Präger Med. Wochenschr.*, 1889, No. 16.

CASE 1.—A girl, seven years old, was tracheotomized for diphtheria. Eleven days later, when the child seemed to be cured, sudden death occurred from hæmorrhage from the mouth, nose, and cannula wound. The post mortem examination showed that decubitis had caused the cannula to perforate the trachea and the arteria anonyma.

CASE 2.—A patient, four-and-a-half years old, was tracheotomized for diphtheria. The cannula could not be removed on account of the development of granulation stenosis. Twenty days later sudden death occurred from hæmorrhage. The post mortem examination showed an ulceration of the trachea perforating the arteria anonyma, which was situated higher than normal.

Michael.

ALEXANDROFF, LEONTY P. (Moscow).—Foreign Body in the Trachea. *St. Olga's Hospital for Children Reports*, 1888, p. 92.

A STRONG and healthy boy, five years old, had swallowed a large-sized seed of the sun-flower. When seen on the fourth day after the accident he was suffering from extreme difficulty in breathing, hoarseness, and severe cough. When applied to the trachea during cough impulses, the author's hand could distinctly feel "springing up" of the foreign body. Inferior tracheotomy was performed without delay, and, after opening the wound by means of a dilator, the seed could be extracted without much difficulty, after which a cannula was inserted. There was some fever during the first nine days (depending upon intense tracheitis with profuse discharge). On the third day after the operation, the tube was removed, and the wound closed with sutures. The latter, however, gave way five days later; the wound ultimately (in nine days) healing *per granulationem*.

Valerius Idelson.

NECK, THYROID, &c.

HÜBER, F.—Cervico-Thoracic Fistula. *New York Academy of Medicine, January 14, 1889. Med. Journal, March 2, 1889.*

THE author presented a patient in whom phlegmonous erysipelas of the neck had ended in burrowing a way into the pleural cavity and posterior mediastinum. The ribs had been resected, and free drainage obtained, and recovery was nearly complete.

R. Norris Wolfenden.

FOWLER (Brooklyn).—A unique case of Hernia of the Pleura in the Neck. (*Medical Society of the State of New York, February, 1889.*) *The Medical Record, February 9, 1889.*

A CASE in which a hernial tumour developed after severe coughing during bronchitis, in an ill-nourished infant. Two well-marked tumours of the neck appeared, one on each side of the trachea, reaching to the inferior maxilla, nearly disappearing on inspiration, and tense on expiration. The child subsequently died of bronchitis, and at the autopsy the tumours were found to have originated in a rupture of a primary bronchus at the upper part of the right lung, allowing air to escape beneath the pleura, which was stripped from its attachments.

R. Norris Wolfenden.

SCHOETZ.—A Case of Erythema Exudativum Multiforme of the Organs of the Neck. *Laryngologische Gesellschaft zu Berlin, May 10, 1889.*

THE patient, forty years old, suddenly became feverish, and experienced pain in the pharynx. Examination showed inflammation of the mucous membrane, and ulceration of the pharynx and gum. The larynx also was reddened. Two days later the ulcer on the pharynx had increased, and the posterior laryngeal wall was also ulcerated. During the next few days rheumatoid pains appeared in the muscles, and an eruption of vesicles and papules on the skin. Recurrences took place on the mucous membrane and skin, and the whole disease lasted eight months. The patient lost during this time forty pounds in weight. In Germany no other case of this disease has been observed. In the discussion which followed, Lewin stated that he had sometimes seen cases of the disease which always is accompanied with nervous depression. Fraenkel proposed to call this condition erythema mucosæ. Schoetz remarked that in his case great nervous depression was observed.

Michael.

WEIR, R. F.—Thyroid Tumours. *New York Academy of Medicine, January 14, 1889. Med. Journal, March 2, 1889.*

THE author presented a number of small tumours removed from the thyroid gland of a patient suffering from myxœdema. He mentioned the interesting fact that one German surgeon had transplanted a fragment of sound gland tissue into the peritoneum in certain cases, rather than remove the whole gland.

R. Norris Wolfenden.

WELCH, W. T. (Newport).—A Case of Cystic Goitre. *Med. Record, July 20, 1889.*

A CASE occurring in an old woman of sixty-three, and which was treated by tapping and injections of perchloride of iron. Some time afterwards stenosis of the larynx occurred (which the author regarded as due to necrosis of the laryngeal cartilages), and the patient died.

R. Norris Wolfenden.

LACAILLE.—Treatment of Exophthalmic Goitre. *Soc. de Med. Pratique*, May 23, 1889.

THE author applies negative electrolysis, placing the positive pole on the arm and using an electrode, covered with moistened buckskin. Into the tumour itself he inserts a needle, which is in connection with the negative pole, and leaves it there from four to twenty seconds, passing through the tumour a current of the strength of six to ten milliamperes. Ten to twenty applications are made each sitting, and the sittings are held every two days. Lacaille has obtained very remarkable results in three patients.

Joal.

AUDRY.—The Surgical Treatment of Exophthalmic Goitre. *Bulletin Medical*, June 5, 1889.

CAN one, or ought one to treat Graves' disease surgically? The author replies negatively. As to a question whether a patient with this affection ought to have surgical interference in the presence of accidents of thyroid origin, he replies that it is legitimate to operate upon a patient who is asphyxiating by reason of the goitre.

Joal.

WÖFLER (Graz).—On Struma Migrans. *Wiener Klin. Wochenschr.*, 1889, No. 19.

IN a patient who experienced attacks of tracheal stridor and dyspnoea no cause, even with the laryngoscope, could be discovered. There was no substernal goitre. During narcosis a tumour of the size of an egg appeared suddenly at the side of the right sterno-cleido-mastoid muscle. The extirpation of this tumour cured the patient. The tumour was a goitre, which was very mobile, and also varied in size by temporary swelling.

Michael.

ASSOCIATION MEETINGS.

The American Medical Association.

Fortieth Annual Meeting, June 25, 26, 27, and 28, 1889.

In the Section on Diseases of Children,

AMONGST others, Dr. GEORGE WHEELER JONES, Danville, O., read a paper on *Heart Failure in Diphtheria*.

Dr. T. E. WAXHAM, of Chicago, sent a paper on *Intubation of the Larynx, with Report of Cases*, which was read by the Chairman (Dr. J. A. LARRABEE).

During the past year the author operated 60 times, with 28 recoveries, or 46.66 per cent., making the total number of operations 210, with 69 recoveries, or 32.85 per cent. He mentioned the increased percentage of recoveries. The author

believed the increased success due to improved methods in feeding, greater experience, and better judgment in the management of the cases. He believed in the adoption of the inclined position, with the head down in feeding or when drinking.

During the past year the youngest case operated on was six months old. Those that recovered under two years were aged fifteen months, and two aged eighteen months. Every case except one was characterised by membranous formation.

Dr. H. O. BATES, of Chicago, read a paper on *Intubation of the Larynx v. Tracheotomy*.

Dr. G. W. GAY, of Boston, opened the discussion. He stated that of 327 tracheotomies at the Boston City Hospital, 95, or 29 per cent., recovered; while of 223 intubations at the same institution, 47, or 21 per cent., recovered. He considered tracheotomy rather more successful than intubation. The new operation of intubation he thought more popular and easier to do. In 32 instances in which tracheotomy was done after intubation, all but three cases died. Personally he does intubations oftener than tracheotomy, because the tube requires less care. He was not positive about the effect of medicines in diphtheria.

The CHAIRMAN had done 16 tracheotomies and saved 4. He believed intubation a better operation in infants below one year of age, but thought that after that period tracheotomy, because of the increase in the strength of the trachea, was preferable.

Discussion was participated in by Drs. DENNISON, BRUSH, and WHITNEY.

Dr. H. D. CHAPIN, of New York, read a paper on *Pseudo-Membranous Rhinitis*.—The author asked the question if there can be a croupous inflammation of the nasal mucous membrane. Hartmann appears to be the first author to make the announcement that this disease is separate from diphtheria. The author reported two cases that he saw in consultation with Dr. Jonathan Wright. The patients were sisters, aged two and three years respectively. The elder child was first attacked; she had been well until two weeks before the time when she was seen. She began with a discharge from the nose. Her general condition was good. An examination of the nose showed it to be packed with fibrinous material. The throat was only congested. There was almost no fever, although at one time the temperature reached $101\frac{1}{4}^{\circ}$ F. The child played about. The baby exhibited about the same course of disease, except that the membrane was much more friable and not so abundant. Neither case presented any evidence of sepsis, and examination of the urine was negative. In view of the cases reported and of the literature of the subject, the author concluded that there is such a disease as pseudo-membranous rhinitis, but that it is extremely rare. He would make a diagnosis on constitutional conditions.

The paper was discussed by Drs. WHITNEY, COCHRANE, SOLIS-COHEN, and the CHAIRMAN.

In the Section on Dermatology.

Dr. CARL SEILER, of Philadelphia, read a paper on *The Relations between Acne and Diseases of the Nasal Cavity*.—The past ten years he had observed a great many cases of acne in connection with diseases of the nose, the acne coming and going with the appearance and disappearance of nasal irritation. Acne punctata was observed to be almost invariably associated with atrophic rhinitis, while acne rosacea was associated with hypertrophic inflammation of the nose. It was known that the blood supply of the turbinated tissue was intimately connected, through the nerve supply, with that of the

skin of the face. The author believed the function of the erectile tissue of the turbinated bones and elsewhere to be that of taking up the overflow of blood of neighbouring parts observed in mechanical or nervous irritation. Relief of the nasal difficulty, in many of the cases which had come under his care, caused the acne to disappear without other treatment, local or internal. The connection between the skin affection and that of the mucous membrane of the cavity seemed to be both mechanical and nervous, or reflex, the one reacting upon the other.

SECTION ON LARYNGOLOGY AND OTOTOLOGY.

THE CHAIRMAN (Dr. W. H. DALY) read a short address on *Marking an Epoch in Laryngology*.—He referred to his formerly expressed remarks in regard to the necessity of the otologist possessing skill in dealing with diseases of the larynx and naso-pharynx, and especially the surgical treatment of the latter, thus associating the speciality of otology with that of laryngology, rather than with that of ophthalmology, with which it has been usually associated in the past. This placing otology in its proper relations is what constitutes the epoch in these specialities.

Dr. JOHN MACKENZIE, of Baltimore, reported a case of *Lymphoid Tumour, originating in the Floor of the Right Pyriform Sinus*, and threatening suffocation when the patient was in a recumbent posture.

The patient, a clergyman, aged forty-two, had never had any throat trouble, and was otherwise perfectly healthy. There was no assignable cause for the growth, which, on microscopical examination, was found to consist entirely of the lymphoid tissue of the pharynx, recently described by Waldeyer and his pupils.

The tumour was removed by first exciting gagging, so as to throw it as far as possible up toward the back of the tongue. It was then caught with a pair of laryngeal forceps, and, with these as a guide, the écarteur was passed over the tumour, and it was rapidly cut through.

Dr. MACKENZIE remarked that growths of various kinds are occasionally found on the pillars of the fauces, glosso-epiglottic fossa, and upper pharynx; but tumours originating in the pyriform sinus are exceedingly rare, and that the growth described is unique.

Dr. SOLIS-COHEN said that it was rather curious that this unique growth originated in the position in which so few cases of lipoma had their origin.

Dr. W. FREUDENTHAL, of New York, read a paper on *The Connection between Chronic Disease of the Upper Air Passages and Hernia*.—In continuation of his observations, formerly published, the author found that in accordance with the frequency of nasal disease hernie are found in the following proportions: In the United States, in 50 out of 1000 conscripts; in France, in 22·87 out of 1000 conscripts; in Italy, in 16·61 out of 1000 conscripts; in Austro-Hungary, in 14·09 out of 1000 conscripts; and in Germany in less than 14 out of 1000 conscripts.

Furthermore, the author proved the correctness of his theory against Dr. Schpinger, who had affirmed the contrary opinion.

In women hernia are rarer than in men, on account of the weaker stress used in the act of coughing, clearing the throat, and the like.

Dr. J. H. BRYAN, of Washington, D.C., read a paper on the *Diagnosis and Treatment of Diseases of the Antrum*.—That author remarked that of the surgical affections suppurative inflammation plays the most important part; until recently it was regarded as a rare condition. It occurs generally after the first dentition. Among its causes are: 1, traumatism; 2, acute infectious diseases; 3, syphilis;

and 4, extension of inflammation from carious teeth. The condition called hydrops antri generally results from catarrhal affections of the nose, in which the secretion is sero-mucous; but where it is muco-purulent it results from extension from diseased teeth.

There are four conditions, after eliminating wounds and exanthemata, that may give rise to pus in the nasal chambers: 1, foreign bodies; 2, disease of bone; 3, secretion of pus from the antrum of Highmore; and 4, secretion of pus from the frontal sinus and anterior ethmoid cells.

The indication for treatment of abscess of the antrum is to let out the pus, drain, and disinfect; if the abscess point anywhere, it should be opened there. The tendency of practice is to open these abscesses through the nose, returning to the method of Hunter, after a century, during which the practice has been to open through the mouth.

The operation most approved is Cooper's—that through the alveolar process. It has these advantages: 1, It affords the best means for draining and disinfecting; and 2, it can be performed without anesthetics. On the other hand, it offers facilities for the entrance of food and bacteria, and it sometimes necessitates the extraction of a sound tooth. Mikulicz opens through the lateral wall of the nose where it is thin. This operation gives easy drainage and washing of the cavity, and there is little danger of entrance of foreign particles.

Local treatment is very important, including irrigation by mildly disinfectant fluids. Permanganate of potash best overcomes fœtor. A syringe specially adapted to washing out the antrum from this point was shown by the author, and several cases were reported in illustration of the subject.

Dr. J. B. LIPPINCOTT, of Pittsburg, said that he was under the impression that purulent disease of the antrum was frequently due to morbid conditions of the teeth. Abscess of the orbit frequently arises from the antrum, which has itself its primary cause in carious teeth.

Dr. E. FLETCHER INGALLS, of Chicago, had treated several cases of the kind. One had been cured after about three weeks' treatment, having been washed out repeatedly with peroxide of hydrogen, through the normal opening into the nasal cavity. However, he had three cases under observation where every form of treatment had been inefficient in checking the purulent discharge. They had worn tubes in the alveolar process for periods of five, three, and two years respectively, and in none of them did there appear to be any dead bone, as the discharge was not offensive.

The CHAIRMAN remarked that he had had considerable experience in opening abscesses of the antrum, and that the operation was not without grave danger at times, and in proof referred to a well-known medical man who lost his life by it.

Dr. JOHN O. ROE, of Rochester, N.Y., read a paper on *Glandular Hypertrophy at the Base of the Tongue, and its Treatment*.—Until recently the importance of this condition was not recognized. He referred to it under the usual name of "lingual tonsil." The lingual and the faucial and pharyngeal tonsils are the same in structure and function—their chief function being the secretion of mucus. The lingual tonsil is liable, from its position, to irritation by the passage of food, etc., and the blood-vessels in and about them seem subject to all the variations of the temperature of solids and liquids which pass over them, and very naturally the glands frequently take on an abnormal condition as a consequence. An abnormally distended condition of the blood-vessels is found in these hypertrophies. These vary according to the conditions of local irritability, but also with the plethoric condition of the general system, and may, as Mr. Lennox Browne has

pointed out, be symptomatic of mitral disease or hepatic engorgement, or even cerebral tumours. Small ruptures over these glands may be the origin of blood-spitting. They are often associated with the same condition of the other tonsils, and the symptoms often resemble those of hypertrophy of the faucial tonsils, causing changes in the voice and inarticulation, and the sensation of a foreign body in the throat, as of hair, etc. Attacks of asthma are not infrequent from this cause, and globus hystericus is often observed in this association in females.

Diagnosis is easily made by inspection on drawing the tongue forward.

Treatment has two objects to accomplish: (1) removal of all hypertrophies; and (2) obliteration of all varicose blood-vessels. The first is best accomplished by abscissions with a curved knife or scissors, is easily done, and unattended by much hæmorrhage or soreness. The galvano-cautery is also useful. Corrosive substances are also recommended, as chromic and nitric acid, Vienna paste, etc. In cases of moderate enlargement, caustic may prove efficient. In using the galvano-cautery, the hypertrophy may be burned away by a flat cautery, applied from the summit downward, by cutting off at the base with the cautery knife, or by transfixing through the base with a very slender cautery point. For destroying the enlarged vessels the last instrument should be used, applied longitudinally to the trunk of the vessel at the point from which they arise, as near as possible. Before any of these operations cocaine should be applied.

Dr. SOLIS-COHEN objected to the term "tonsil" applied to collections of lymphoid tissue, other than those existing between the arches of the palate. He approved of the author's method of getting rid of the growths. In case of slight enlargement he found that a solution of creosote, or carbolic acid and iodine in glycerine, sufficient topical treatment.

Dr. E. FLETCHER INGALLS, of Chicago, read a paper on *Electrolytic Treatment of Cystic Goitre*.—The author referred to the various conventional methods of treatment, and especially to that of Sir Morell Mackenzie, first published in 1872, and which is pronounced in Holmes' "System of Surgery" to be the most efficient. This consists of injecting into the cyst a solution of perchloride of iron, and allowing the cannula of the trocar, tightly plugged, to remain in place for three days. If, on removing it, suppuration does not take place, the same procedure is repeated, this being followed by poulticing.

The author claims for electrolysis that it produces more rapid results, is less dangerous, and has other advantages over other methods, and gave the history of two cases in support of his views, which had been treated by him by electrolysis.

In the first case, after several tapplings, followed each time by rapid reaccumulation of fluid, electrolysis was used, and after three or four applications, for ten minutes, of from six to ten Leclanché cells, the cysts ceased to refill, and remained cured. The tumour had been found to be about one-third solid tissue. This remained, but did not increase. A needle was passed into the cyst and the other pole of the battery applied over the tumour.

The second case was one which had existed for several years, and had been injected with iodine and other fluid, but continued to remain of about the same size. Electrolysis was first employed on February 23, and after four or five applications, on March 23, it had ceased to refill, and the cyst was completely eradicated. The strength of the current was regulated by the patient's ability to bear it.

Dr. D. BRYSON DELAVAN, of New York, then read a paper on *Adenoid Hypertrophy of the Vault of the Pharynx; its Pathology and Treatment*.—The author stated that there were two principal varieties of the disease. In one the growth was soft, friable, and rich in lymphoid elements; in the other there was an

excess of fibrous tissue. The first was removable with ease and little pain—the other was exceedingly tough, and removal caused much pain. The methods of operation were alluded to, and it was insisted that in the more severe cases, even in young adults, the use of anæsthetics is of the greatest importance, and that removal should be completed if possible at one operation. The author also insisted upon the great importance of the proper after-care of patients thus operated upon, and recommended that they be put upon a course of tonic treatment, and that the mouth-breathing habit be corrected by special attention thereto; that deformity of the chest, if present, be remedied by proper physical exercise; and finally, that errors of pronunciation be eradicated. The paper was illustrated by numerous instruments and by several fine coloured drawings.

Dr. F. H. POTTER, of Buffalo, N.Y., then read a paper on *The Use of Menthol in the Upper Air-Passages*, with the results of its use by him during the past three years by local application. These results indicate that the drug controls superficial inflammation; that it is an analgesic, and second application can be made in increasing strength without discomfort; that it is destructive of some of the low forms of life, especially the bacillus tuberculosis, and that it is a valuable antiseptic in nasal surgery. It has an important place in the treatment of atrophic conditions. It can be used in strength of from one to fifty per cent. dissolved in oil. The oleum petrolia the author considers the best for the purpose of dissolving the drug. It can be applied directly by cotton application, or by means of the spray, or by vaporisation. The direct method answers best in the pharynx, the spray and vapour for the nose and larynx. Five cases of laryngeal phthisis following upon disease of the lungs were also reported, in which the menthol treatment gave satisfactory results, the local conditions improving rapidly under its use.

Dr. CHARLES H. KNIGHT, of New York, read a paper on *Menthol in Laryngeal Phthisis*.—Twenty cases, most of them of a severe type, treated with menthol applications, furnished the author ground for believing that this is a valuable agent in tubercular laryngitis. The drug was dissolved in fluid cosmolene in the proportion of a drachm or a drachm and a half to the ounce, and applied by means of a laryngeal syringe, or in the form of spray, by a nebuliser or vaporiser. In nearly all cases the subjective symptoms and the local appearance improved. In no case did complete healing of an ulcer take place. In this respect the author's experience does not bear out the representations of Rosenberg and others. Three propositions are offered: (1) spontaneous cure of a tubercular ulcer of the larynx may occur; (2) a simple erosion or ulceration may be mistaken for a tubercular ulcer; (3) the best results from local treatment of the larynx may be expected in cases of incipient or limited pulmonary disease, and in primary laryngeal tuberculosis.

Dr. H. HOLBROOK CURTIS, of New York, then read a paper on *Anæmia and its Relation to Nasal Stenosis*.—By a tabulation of cases he demonstrated that nearly all patients with stenosis were anæmic, the percentage of oxy-hæmoglobin being only about one-half that of normal blood. In his experiments he had used the hematoscope of Hénocque, and had again tested the blood after several weeks had elapsed. The conclusions arrived at were that the increase of oxy-hæmoglobin in the blood after operation on the septum is directly proportional to the relief afforded an impeded nasal respiration. This increase is constant, and averages about two per cent. in the six weeks immediately following operation, in which the stenosis is about fifty per cent., or in which the nose is doing one-half its work.

Cases should not be operated in which the blood shows by spectrum analysis less than six per cent. of oxy-hæmoglobin, as profound hæmorrhage is apt to occur.

Records had also been kept in regard to body weight, chest measurements, and capacity of the lungs by the spirometer. These factors also exhibit improvement after operation.

Dr. F. S. CROSSFIELD, of Hartford, Connecticut, read a paper on *Epilepsy caused by Intranasal Disease*.—The author stated that the first case that came under his notice, in 1886, had all the appearance of some grave lesion of the lungs—emaciation, hacking cough, more severe at night, headache, night-sweats, and anorexia. The patient had epileptic convulsions, the first six years, twice a month, or oftener. Associated with this condition was marked nasal hypertrophy of both cavities, with deflected septum to left side, and exostosis, whose sharp angle pressed against the hypertrophied turbinated body; marked adenoid growth of the naso-pharynx; slight changes in the larynx. Epilepsy entirely disappeared when this pathological cause was removed, and the patient is now entirely well.

The second case was much like the first, only with slight enlargement of the pharyngeal tonsil. The epileptic seizures were much more frequent. This case likewise fully recovered on removal of the local cause.

Dr. J. G. CARPENTER, of Stanford, Kentucky, read a paper on *Internal Ear Deafness*.—The author said that many of the cases of internal ear deafness were due to nasal disease, and by curing the latter the former is relieved. Nasal disease should be treated before structural lesions have taken place in the internal ear. Two cases were reported in illustration of his subject by the author.

Dr. D. N. RANKIN, of Pittsburg, Pennsylvania, read a paper on *Effects of Natural Gas upon the Upper Air-Passages*.—Natural gas was introduced to use in Pittsburg in 1883. It at first gave rise to great complaints. It made the air too dry to breathe; it ruined furniture by cracking the joints; it was repudiated by many who had tried it, and the apparatus for its use removed from their dwellings. Explosions also occurred. But it is a very cheap fuel and light, and experience taught how to use it without producing these effects. Chemical analysis shows it noxious to breathe. The pipes were at first made of too porous metal and leaked; now it is used without these defects, and is no longer breathed by the users, and no deleterious effects are produced upon them.

Patients suffering from its inhalation will complain at first of dryness of the throat and nares. This is followed by free discharge of muco-purulent matter from these cavities. After this the dryness recurs, sometimes the symptoms extending to the larynx and producing hoarseness. Mirror examination shows congestion in the nose and pharynx, and great sensibility exists in these parts, promptly relieved by a four per cent. solution of cocaine, followed by vaseline to the nose and throat.

Dr. GEORGE A. RICHARDS, of New York, read a paper on *Empyema of the Frontal Sinuses*.—The author reports a case of empyema of the frontal sinuses due to obliteration of the infundibulum by a polyp which had existed fifteen years. The empyema had produced absorption of the lower wall of the sinus, and a small tumour had appeared at the root of the nose about eight months before the patient presented himself for treatment. An opening was made into the swelling, and a tube passed through into the nose, after about twenty polypi had first been removed. After thorough cleansing thrice daily for about a month, the patient completely recovered. Sight improved at once, and complete relief to a very marked anorexia, and great improvement in the general health, as well as in breathing and smell.

Of forty-eight cases collected by the author from literature, only fourteen were the result of injury, and but seven the result of obstruction. Some cases occur many years after injury. The majority occur without known cause. The symptoms are more or less those of an ordinary coryza, together with a feeling of distention,

exophthalmus, diplopia, failure of eyesight, and the appearance of a tumour over the superciliary ridge or at the root of the nose; hard at first, this soon becomes soft and fluctuating.

The only treatment is to make an extensive opening into the nose through which a perforated rubber tube should be passed. Cleanliness and free drainage are most important. Of twenty-five cases so treated cure resulted in twenty-three; in two result was not stated; while when drainage into the nose was neglected the results were not nearly so good. Death occurred in six cases; in four from secondary cerebral abscess; in one from meningitis, and in one from albuminuria.

Dr. C. W. RICHARDSON, of Washington, D.C., read a paper on *Possible Danger of Injury to the Middle Ear by the Use of Nasal Atomization*.—The author anticipated criticism as to the reality of such dangers being very great. He wished especially to call attention to the danger to the middle ear from the use of such spray instruments as Davidson's and Snowdon's atomizing tubes because of the direct pressure exerted. The first case was that of a lady. The author was spraying the nose to remove crusts with Dobell's solution. An acute pain was experienced in the ear; spray was cut off at once. This was followed in a few hours with typical acute middle-ear inflammation. The other two cases were similar ones.

The author thought it a common experience with rhinologists in spraying the nose to have the patient remark that he felt the spray go into his ear. He did not wish to decry the spray, a very useful means of treatment, but simply to point to the possible danger it involved, and to caution against the indiscriminate prescribing hand-sprays to be used by the patient upon himself.

Dr. JOSEPH A. WHITE, of Richmond, Va., read a paper on *The So-Called Third Tonsil*.—The author believed that glandular hypertrophy in the post-nasal space, even when slight, is an active agent in keeping up a catarrhal condition of these and neighbouring parts, and causing extension to the ear. To get rid of the catarrhal condition these growths must first be destroyed—the same treatment must be applied also to removal of the faucial tonsils for the same reason. We do not know the exact function of these tonsillar tissues, but we do know that their removal does no harm. Perhaps the third tonsil plays a greater part in the production of secondary disease than the faucial, and this is easily understood when their relation to obstructed respiration and ventilation of the Eustachian cavity is considered. Marked impairment is present in these cases.

Besides the mulberry-like growths there may be round projections or conical ones, or several knob-like swellings, or flat, cushion-like masses, etc. These growths are sometimes soft, and easily removed, at others compact and tough, and hard to get rid of. The Eustachian tubes are apt to be especially infringed upon by the latter, from pressure. Statistics are unreliable, because careful examination and noting as to deafness is not often made by rhinologists. There is always more or less deafness where these growths exist. Out of 565 cases of private practice in eighteen months of naso-pharyngeal affections, the author had found 197 had disease of the middle ear. Of these 134 had hypertrophy of the third tonsil—twenty per cent. of the whole number treated.

An interesting point is the large number of voice defects in these cases. This is scarcely understood, knowing as we do, in our experience with professional singers and others who habitually use the voice, the necessity of perfectly clear arching of the naso-pharynx to secure perfect resonance and timbre.

The presence of these growths causes an increase of catarrhal secretion, which can only be removed by eradication of the hypertrophies—the only local means which proves effective in treating the catarrh. Neglect of this may lead to more serious troubles; for example, anterior turbinated hypertrophy; another is the occasional paralysis of the alæ of the nose, causing serious impediment to breathing.

The method of removal is unimportant, provided it is thorough. Large masses are best removed with the galvano-cautery snare or cutting forceps; the latter is painful, even with cocaine anæsthesia. Galvano-cautery points are best, perhaps, for soft, smooth masses.

The author had found his palate-retractor of great help in these operations. The paper was illustrated by reports of cases.

Dr. W. K. SIMPSON, of New York, reported a case of *Acute Rheumatic Laryngitis of Gonorrhœal Origin*. The author remarked upon the extreme rarity of the case, not having been able to find reference to a similar one. Seen first on February 23rd, 1888. The patient gave the history of previous attacks of gonorrhœa, the present attack being of five weeks' duration. The rheumatic pains and stiffness had existed three weeks in both knees and hips, for three days in left thumb and wrist, presenting at this time typical swelling of acute rheumatism. Laryngeal symptoms began three days ago, with painful deglutition. On the following day there was a painful swelling of the lower external portion of the larynx. In the evening the patient became very hoarse, and talking was very painful. February 23rd, examination of the throat revealed painful deglutition, pain on pressure over right side of larynx, and absence of cough. Internally, both arytenoids swollen and red, right much in excess, and somewhat œdematous; the right vocal cord immobile on phonation, all of interior of the larynx more or less hyperæmic, the right vocal cord being of a deep purple colour and considerably swollen. The treatment consisted of the use of salicylic acid, which did not prove entirely effective. Laryngeal swelling increased embarrassing respiration. On February 29th a blister was applied to external larynx, and iodide of potash administered. On March 6th he had greatly improved, but there still remained little motion of the right arytenoid and cord, and they were both still very red.

Dr. A. B. THRASHER, of Cincinnati, O., read a paper on *Morbid Perforations of the Nasal Septum*. The author reported sixteen cases of morbid perforation of the septum narium, having special reference to the syphilitic theory of the origin of the disease. Three of the cases occurred in syphilitics, eleven where syphilis had not been present, and two cases were doubtful. In syphilitic cases the vomer, or, at least, one of the turbinates, was invariably attacked, and pain was always felt when this was the case. In the non-syphilitic cases the perforation, as a rule, gave rise to no symptoms; at times it seemed to have been caused by picking the nose with the finger-nail. There was localized anæsthesia in the ulcerated area. The application of the galvano-cautery produced no pain. The treatment consisted locally in detergents, caustics to the ulcerated area, and mild ointments; and internal remedies addressed to the underlying dyscrasia.

Dr. J. E. SCHADLE, of St. Paul, Minn., read a paper on *Cough in its Relations to Morbid States of the Nasal Passages*. The symptomatology of morbid processes seldom furnish a more perplexing subject for analysis as to its primary cause than that of cough. A chronic cough which does not yield to ordinary treatment, and the origin of which is obscure, is apt to excite extreme anxiety in the sufferer. The subject is interesting from its practical relations.

Three cases were reported, in which chronic cough of long standing was cured by directing proper measures of treatment to removal of existing nasal disease, consisting in one of posterior hypertrophies of the inferior turbinated bodies; another of nasal stenosis caused by deformity of the nasal septum; and a third, of chronic nasal catarrh.

The author maintained that when cough is thus pathologically connected with morbid states of the nasal passages it is usually produced by reflex nervous influences or paresis of the vaso-motor blood-vessels of the intranasal mucous membrane.

DR. CHARLES DENISON, of Denver, Col., read a paper *A New Mouth-Gag, together with the consideration of other possible and better results from Intubation of the Larynx*. The author presented a table of his 25 cases of intubation, with seven recoveries. They were shown to be a severe class of cases. He had experimented to construct a better gag than those in use, and exhibited four of the new varieties made. One of these especially mentioned is so constructed as not to get out of place during the operation. A new feature of these gags is to have the teeth trough made somewhat swivel, so that they will fit any angle of the jaw—a child of any age.

The author thinks that he has discovered an indication for early operation. In two successful cases he was led to operate early, from noticing that the tension of the pulse was less during inspiration than during expiration, showing that there was suction of blood back into the pharynx during inspiration, because of the laryngeal constriction. This the author believes to be the first warning of danger and indication for intubation. In nine of his eighteen fatal cases death occurred at an average of 26 hours after intubation, and was attributable to the so-called aspiration pneumonia.

DR. E. L. SHURLEY, of Detroit, Mich., presented a paper on *The Hot Air Treatment of Phthisis*. The paper was intended to simply report progress in the use of the Weigart apparatus. The author had used the apparatus in about 20 cases, but in only 8 with that constancy and exclusiveness that would serve as a test.

CASE 1: Obligated to discontinue treatment from pain caused to throat and lungs by the inhalations of hot air.

CASE 2: Administered three and four times a day for 15 minutes at 120° to 200° F., the latter only three times; 130° and 190° F. on several occasions. Immediate improvement followed.

CASE 3: Caused nausea and vomiting, but hectic fever decreased and strength and flesh increased.

CASE 4: Febrile movement caused by treatment, also pain in the chest, with breathlessness and nausea; discontinued after ten days.

CASE 5: Pulmonary and laryngeal phthisis. Administered for a week. Could not bear it longer.

CASE 6: Advanced stage of pulmonary phthisis. Given three times a day; could not bear it; discontinued.

CASE 7: Good effects.

CASE 8: After 14 days had to be stopped; apparently causing loss of appetite.

The author had found it impossible to apply the method for such a length of time as is reported to have been done in Germany.

DR. CARL SEILER, of Philadelphia, read a paper on *Clinical Observations on some Cases of a Peculiar Character*, in which he described the symptoms of a disease not yet well known, and which has as yet received no name. The author had not seen the paper which he had recently learned that Dr. W. C. Glasgow read before the American Laryngological Association in Washington, at its late meeting, he therefore confined the paper to his own personal observations.

The run of symptoms of the cases observed by the author were summed up as follows:—

1. Neuralgic muscular pains, usually in the back and chest, and often in the head, ears, and limbs.
2. Extreme debility.
3. Mucoid infiltration of the submucous tissues, and the formation of thin, white, pseudo-membranous patches on the surface of the mucous membrane.
4. Absence of febrile symptoms at first, and later, high temperature and low rate of pulse relatively.

5. Absence of albumen in the urine, and liability of heart failure.
6. Gradual melting away of the pseudo-membrane, and the absence of any odour from it.
7. The wide geographical distribution in this country, and the infectious, but not contagious, nature of the disorder.
8. Finally, the specific action of benzoate of soda in relieving the symptoms promptly.

Dr. E. CUTTER, of New York, reported the following two cases: *A Case of Thyrotomy for the Removal of a Sarcoma*, operated on in 1886, was presented. The patient on whom the operation was performed could phonate. Reference was made to Dr. Höffa's late paper, giving the statistics of thyrotomy since 1879, which were so successful as to justify the more frequent resort to this too-much-dreaded operation. The case presented here was done without tracheotomy. The youngest case the reader had operated on was a child of 22 months. The voice was restored.

A Case of Fibroid of the Right Arytenoid, operated on in 1868, by scarification, by a simple knife of the writer. Present state—permanent cure after 21 years.

A second like case of enlarged arytenoid, in an Irishman, was not successful. A tracheotomy tube was inserted with relief. Patient visited Ohio, and while there a physician removed the tube as useless, and the man died soon after.

Dr. Cutter proposed to change the name of the ventricular bands to "breath bands," on the ground that the false vocal cords are as true in their function as the true vocal cords, the said function being the control of the breath in expiration, as seen in the laryngeal demonstrations by the author. The writer has waited five years for the systemic writers to rename these bands, with no response, hence this name is suggested.

The Medical Record.

NOTES.

NEW COLLABORATOR.—We have the pleasure to announce that Dr. BARCLAY J. BARON, of Bristol, has undertaken to become one of our regular collaborators.

AMERICAN PUBLIC HEALTH ASSOCIATION.—We are requested to notify that the 17th Annual Meeting of this Association will be held in Brooklyn on October 22nd, 23rd, 24th, and 25th, 1889. The following have been selected as topics for consideration :—

1. The causes and prevention of Infant Mortality.
2. Railway Sanitation.
3. Steamship Sanitation.
4. Methods of Scientific Cooking.
5. Yellow Fever.
6. The Prevention and Restriction of Tuberculosis in Man.
7. Methods of Prevention of Diphtheria, with results of such Methods.
8. How far should Health Authorities be permitted to apply known Preventive Measures for the control of Diphtheria?
9. Compulsory Vaccination.
10. Sanitation of Asylums, Prisons, Jails, etc.

A local Health Exhibition will also be held.

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SOME POINTS IN THE
PATHOLOGY AND TREATMENT OF DISEASE
OF THE NASAL PHARYNX.¹

By JOHN N. MACKENZIE, M.D.,

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THAT the nasal pharynx is exquisitely sensitive to reflex-producing impressions is a fact which has been known for some time, and the older medical literature contains isolated examples of neurotic phenomena of various kinds emanating from pathological conditions of this region. These reflex neuroses of the nasal pharynx were, however, almost unknown except to special workers in this field until the publication of a brochure by Dr. Tornwaldt, of Dantzig,² in which prominent attention was drawn to the subject, and which invested the so-called bursa pharyngea with a pathological importance hitherto unrecognized and undescribed.

According to Tornwaldt, this bursa is a constant integral part of the rhinoscopic picture, and can always be recognized, sometimes as a furrow-shaped, sometimes as a blind *cul-de-sac* directly in the middle line in the centre of a curve drawn from the upper edge of the posterior nares to the atlas. This sac is the frequent seat of various pathological processes—hyperæmia, cystic formations, hypersecretion, and simple and purulent inflammation: and these often lead to reflex disturbances—such as asthma, cough, nasal polypi, various ear troubles, neuralgia, inflammatory conditions of the naso-bronchial tract, etc. He furthermore maintains the proposition that naso-pharyngeal catarrh has its starting point, in very

¹ Read before the American Laryngological Association at its Eleventh Annual Congress. From a forward proof, kindly furnished by the *New York Medical Journal*.

² "Ueber die Bedeutung der Bursa Pharyngea," etc., Wiesbaden, 1885.

many cases, in a localized pharyngeal bursitis, and that its cure is only possible after destruction of the bursa itself. His treatment, accordingly, consists in the obliteration of the bursa by means of nitrate of silver, following insufflations of this agent (one to ten) with the application of the fused solid directly to the sac. Tornwaldt's hasty enthusiasm carries him to the startling statement that, of 892 cases of naso-pharyngeal disease examined by him, 202 were primary affections of the pharyngeal bursa.

There are many objections which may be urged against the theory of Tornwaldt. In the first place, the very constancy and existence of the pharyngeal bursa is a subject of dispute among distinguished anatomists, and, according to my experience, the appearances described by Tornwaldt are by no means constant in the rhinoscopic image.

In the second place, when we consider the changes which take place in the pharyngeal vault during the different stages of inflammatory affections of the nasal pharynx—the frequent formation of cysts of varying shape and contents, the formation of depressions, furrows, and other conditions of the pharyngeal tonsil—it will be readily understood how easily mistakes in diagnosis may occur, or how difficult it often is to differentiate between well recognized appearances in the pathological anatomy of post-nasal inflammation and the theoretical primary bursitis of Tornwaldt. That such errors have been indeed committed is evident from some of the literature on the subject.

It is highly improbable, nor are there any just grounds for belief, that an organ of such comparatively trifling anatomical and physiological importance should be vested with the peculiar privileges assigned to it by the followers of Tornwaldt. Since I became aware of Tornwaldt's researches I have searched in vain for what might be unequivocally termed a primary pharyngeal bursitis. When the bursa has been involved it has been so invariably in connection with well-marked and far-advanced naso-pharyngeal disease. So that, from the standpoint of my own clinical experience, I am unable as yet to confirm the observations of Tornwaldt. Naso-pharyngeal disease is the most common affection of this climate, and the innuendo of Carroll Morgan—that the postulate of Tornwaldt regarding the great frequency of primary disease of the bursa, living, as he does, in a city of small population, has not been confirmed by the vast majority of specialists residing in large cities, and commanding an immense amount of clinical material—may possibly carry with it considerable force.¹

While, then, Tornwaldt's observations must, for the present, be taken with a considerable amount of reservation, they have, at least, directed prominent attention to a field of naso-pharyngeal pathology of exceedingly great interest and importance. From them we may learn the lesson that, in order to dissipate certain inveterate naso-pharyngeal affections, we must not rely on astringents, alteratives, *et id omne genus*, but we must destroy the source of the discharge.

My own observations concerning this class of naso-pharyngeal neurosis may be briefly summed up in the following propositions :—

1. The nasal pharynx is, in quite a large proportion of individuals, exceedingly sensitive to reflex-producing stimulation.

2. The areas chiefly involved are the posterior portions of the turbinated erectile tissue and various points along the upper and posterior portions of the naso-pharynx.

3. In consequence of this extreme sensitiveness, a local pathological process, which in many persons would give rise to no reflex neuro-vascular changes, may awaken a host of neurotic phenomena referable not only to the region primarily involved, but also to other and even remote organs of the body. These may include cough, asthma, and various neuralgic affections, or the local structural lesion may be the starting point of the various sympathetic affections of the respiratory tract.

4. That this class of naso-pharyngeal neuroses are explicable on the same general principles laid down in the article read before this Association, May 29, 1886 (*vide* "Transactions," page 154 *et seq.*), and the pathology of the nasal and post-nasal affections is, therefore, one and the same.

5. That the treatment should be carried out according to the general directions laid down in the article just mentioned.

6. That when the morbid process originates in the pharyngeal tonsil attention should not be directed to the bursa alone, but an endeavour should be made to extirpate the tonsil, as far as possible, in its entirety.

7. That, while a favourable prognosis cannot be safely predicted by treatment of the bursa alone, extirpation of the pharyngeal tonsil often offers the most favourable prospect in long-standing cases of post-nasal inflammation.

THERAPEUTICS, NEW INSTRUMENTS, &c.

HALL.—A New Polypus Snare. *The Medical Record*, May 11, 1889.

THERE is an illustration of this instrument, which must be seen to be understood.

Barclay J. Baron.

COTTERILL, J. M. (Edinburgh).—Gag, Cheek-Retractor, and Tongue Depressor. *Lancet*, December 1, 1888.

THESE are stated to be admirably adapted in operation for cleft palate. They are made by Mr. Gardner, Lothian Street, Edinburgh.

Hunter Mackenzie.

RUEL (Genf).—Tracheal Cannula with Iris-diaphragm. *Monatssch. für Arztl. Polyk.*, 1889, No. 7.

A COMPLICATED instrument devised to diminish successively the lumen of a tracheal cannula in cases of difficult decannulation. The same effect can be produced by successively introducing smaller cannulas.

Michael.

LANDMANN.—Chromic Acid Battery for Medical Use and Instruction. *Monatssch. für Arztl. Polyk.*, 1889, No. 7.

NOTHING new.

Michael.

PHILPOTS, JOHN R.—The "J. R. P." Insufflator. *Prov. Med. Journ.*, August, 1889.

AN instrument for auto-insufflation of suitable powders in the early stages of nasal catarrh and hay fever. It is said to be small enough to be carried in the waistcoat pocket. It can be kept charged with powder which, by an ingenious arrangement of a screw-lid, is prevented from becoming damp or from escaping when the instrument is not in use. Dover's powder is recommended for insufflation in nasal catarrh; while for hay fever the following are said to be of use:—Sodæ salicylat., \mathfrak{J} iv.; acid. borici (pulv.), \mathfrak{z} i.; cocain. hydrochlor., grs. 22; and second, salol and boric acid, equal parts.

Maxwell Ross.

ILLINGWORTH, C. R. (Clayton-le-Moors).—The Biniodide of Mercury. *Prov. Med. Journ.*, August, 1889.

IN a letter to the Editor, Dr. Illingworth recommends that it should be prepared by adding a solution of sodic iodide (1 in 4) to sol. hyd. bichlor. (B.P.). A strength of 1 in 2000 may then be used as a spray in scarlet fever and diphtheria; and as an inhalation and douche in hay asthma; and 1 in 4000 as a spray in ozæna.

Maxwell Ross.

HOLSTE (Göttingen).—Aluminium Acetico-Tartaricum and its Use in Nasal Diseases. *Berl. Klin. Wochenschr.*, 1889, No. 30.

FOR ulcers in the nose the medicament produces such great irritation that it cannot be applied; polypi are diminished in size when it is applied. Ozæna is improved in many cases by application of the medicament, and rhinitis hypertrophica also.

Michael.

KAFEMANN.—Electrolytic Operations applied to the Air Passages, and especially the Electrolytic Treatment of Ozæna. *Verein für Wissenschaftliche Heilkunde in Königsberg*, April 15, 1889.

AT this meeting the author related his experience of this method of treatment.

Michael.

SCHNITZLER (Wien).—The Application and Use of Balsam of Peru in Diseases of the Lungs and Larynx. *Internat. Klin. Rundschau*, 1889, Nos. 26, 28, and 29.

THE author has employed inhalations of balsam of Peru for acute and chronic catarrhal diseases of the mucous membrane of the respiratory organs and the pharynx. In diseases of the larynx he has applied insufflations of powders mixed with this medicament, and in cases of laryngitis has used brushings. He believes that it can be applied in many cases with good results.

Michael.

PERCEVAL, MONTAGU (Tasmania).—Antipyrin in Laryngismus Stridulus. *Lancet*, November 17, 1888.

THE dose was one grain for each year of the child's age, administered every hour or two until the paroxysm abated. The author claims success for this method of treatment, which is stated to be also of service in pertussis.

Hunter Mackenzie.

SNOW, HERBERT (London).—The Combination of Antipyrin and Morphine. *British Medical Journal*, February 16, 1889.

THIS combination is stated to be of great value as an analgesic, especially in malignant affections of the mouth and tongue.

Hunter Mackenzie.

EDITOR OF BRITISH MEDICAL JOURNAL (London).—Cocaine Poisoning. *British Medical Journal*, February 9, 1889.

IN this leading article an analysis is made of the recorded cases of cocaine poisoning. In regard to the toxic dose of the drug, it appears that any dose above one grain, whether injected into the gums or under the skin, may give rise to serious, though not necessarily fatal, symptoms. A case is referred to in which the injection of one-seventh of a grain was followed by poisonous symptoms, but this is believed to have been due to some idiosyncrasy on the part of the patient. Never inject more than half or three-quarters of a grain.

Chloral-hydrate antagonises all the actions of cocaine, except the rise in temperature, and either it or chloroform ought to be administered in cases which develop toxic symptoms in order to avert the fatal termination by respiratory tetanus.

Hunter Mackenzie.

EDITORS OF LANCET (London).—Poisoning from a Local Application used for Tooth Extraction. *Lancet*, December 8, 1888.

AN annotation referring to a case recorded in the *Dental Cosmos*, in which symptoms of poisoning followed the free application to the gums, three times in five minutes, of a mixture of cocaine hydrochlorate, carbolic acid, chloral hydrate, and water. One peculiarity of the case consisted in the appearance on the forearms of a pustular rash, due most probably to the chloral, and not to the cocaine.

Hunter Mackenzie.

WILLIAMS.—A Novel Method of Intubation with Ordinary Rubber Tube. *The Medical Record*, January 26, 1889.

A SOFT rubber tube, seven-eighths of an inch in external diameter, was employed in a case of diphtheria, where the obstruction to respiration was due to tumefaction of the tonsils and uvula, the larynx being intact. It was kept in for seventy hours, one end hanging out of the mouth, at the end of which time the child was out of danger.

Barclay J. Baron.

ARMSTRONG, GEORGE E.—Intubation v. Tracheotomy. *Montreal Medical Journal*, June, 1889.

THE author says his experience inclines him to regard intubation most favourably. He quotes statistics to show that in children under fourteen

years of age it yields a far larger percentage of recoveries than does tracheotomy.

Maxwell Ross.

ANNANDALE, THOMAS (Edinburgh).—**Intubation of the Larynx and Air-Passages, with a Description of a New Instrument, as an Aid to Certain Operations.** *British Medical Journal, March 2, 1889.*

THE author discusses this subject under four heads:—(1) Intubation as an aid in certain operations; (2) Intubation as a means of restoring or carrying on respiration in cases of sudden obstruction in the larynx or trachea; (3) Intubation in cases of acute inflammatory affections of the larynx, more particularly in croup and diphtheria; (4) Intubation for stenosis of the larynx, the result of chronic inflammatory action, or of accidental or surgical wounds. The author speaks favourably of this operation.

The instrument designed by the author is "an elastic tube—not too pliable—shaped after Schrötter's one, and having an arrangement to prevent the compression of its canal from contact with the teeth or otherwise. To the end of the tube protruding from the mouth there is also attached a piece of india-rubber tubing, through which an anæsthetic may be administered, at a convenient distance, in the case of an operation." An illustration accompanies this description of the tube.

Hunter Mackenzie.

BROWNE, LENNOX (London).—**Anatomical and Other Facts in Support of Intubation.** *British Medical Journal, March 9, 1889.*

IN an able paper the author reviews the anatomical and mechanical objections that have been raised against the principle and practice of intubation, and shows their groundlessness. He recommends that the tube be introduced under the guidance of the laryngeal mirror at an early stage of the disease.

Hunter Mackenzie.

BLEYER.—**Some Practical Hints in Connection with Intubation of the Larynx, and a Résumé of 206 Cases Operated on from 1886 to 1888.** *The New York Medical Journal, February 2, 1889.*

THE author always practises laryngoscopy, "forced or normal," on his patients before intubating. He describes his method of procedure, and figures a tongue retractor and spatula. He has, in the last fifty cases, extracted the tube daily, and when the tube is removed he irrigates all the passages with a weak solution of bicarbonate of soda, gives the little patient food, and then replaces the tube. In most cases the tube was allowed to remain out after the second or third day.

He gives the signs, such as decrease of cyanosis, free expectoration of muco-pus, &c., that are present when the tube is in the larynx, and contrasts these with increase of cyanosis, absence of characteristic cough, and gradual disappearance of the thread that holds the tube when it has been placed on the œsophagus. If in doubt the finger ought to be applied to the head of the tube to ascertain its whereabouts, or laryngoscopy be practised. Always gag the patient before removing the thread.

To wash away the membrane, mucus, &c., use a number eight soft rubber catheter attached to a syringe, pass this through each nostril, and allow a solution of peroxide of hydrogen, one in twelve, to flow through the catheter. Make another solution, one in twenty-four, and pass the catheter well down into the larynx and irrigate thoroughly. The author praises this method of treatment very highly, the membrane melting down and being removed rapidly, and without any danger of choking or poisoning should the solution be swallowed.

Internally glycozone, composed of pure glycerine saturated with active ozone, in dose of fifteen drops in water every two hours for a child two years old, is said to be very valuable.

The author recommends his false epiglottis tube to help to overcome the difficulty of feeding with fluids. Protection of the examining medical man's eyes by means of eye-glasses in any suspicious case is insisted on; and he recommends cleansing all tubes and instruments that have been used in a contagious case by scrubbing and boiling them before and directly after for ten minutes in a closed pot of water at 212° Fahrenheit, and then putting them for ten minutes longer in a one to forty solution of carbolic acid. His results are as follows:—Under three years of age, one hundred and seven cases, twenty-four recoveries, or 22·43 per cent.; over three years of age, ninety-nine cases, forty-three recoveries, or 43·44 per cent.

The diseases which rendered the operation necessary are not stated.

Barclay J. Baron.

MICHAEL (Hamburg).—**Contribution to the Therapeutics of Hypnotism.**
Deutsch. Medicinal Zeit., August 8, 1889

THE author has applied hypnotism and suggestion in eight cases, four of which are without special interest. In two cases of nervous aphonia the voice returned at the first sitting, and no relapse followed. In a third case, in a pregnant woman, the voice did not re-appear. It is possible that there was an inhibitory auto-suggestion, because a physician had said to the patient that the voice would not return during gravidity. In a case of reflex nasal asthma the condition was instantaneously improved by the method.

Michael.

DIPHTHERIA.

EDITOR OF BRITISH MEDICAL JOURNAL (London). — **The Pasteur Institute: Researches on the Bacterium of Diphtheria, and its Soluble Poison.** *British Medical Journal*, February 9, 1889.

THIS leading article deals with the researches of Drs. Roux and Yersin (published in the *Annales de l'Institut Pasteur*, Nos. 11 and 12, 1888). These investigators believe that they have discovered the microbe of diphtheria, and amongst the most interesting of their conclusions is that

this organism acts by secreting a soluble poison, the injection of which into animals produces the different forms of diphtheritic poisoning. This poison is believed to be of the nature of a ferment. The authors believe that it is possible by inoculation to produce immunity in animals, but the investigations on this point are still in progress. The most efficacious agent in prophylaxis is careful cleansing of the mouth and pharynx with carbolic acid.

Hunter Mackenzie.

HEUBNER.—The Diphtheritic Membrane. *Jahr. für Kinderheilk., Bd. 30, Heft 1, 2.*

THE author has made microscopical examinations of the diphtheritic membrane in all stages of its evolution. During the first day the membrane consists of the uppermost parts of the epithelium and diphtheria therefore, must be regarded as an ensudative exanthem, which becomes more and more thick during the succeeding days. The croupous membrane increases during the following days. The very carefully recorded results of the microscopical examinations must be read in the original. The author concludes that energetic treatment of the local disease is not indicated.

Michael.

SIEBENMANN (Basel).—Contribution to the Question of the Effect of Micro-Organisms in Otitis Media Diphtheritica. *Zeitschr. für Ohrenheilk., Bd. 20, Heft 1.*

IN a specimen from a patient dead from scarlatinal diphtheria of the pharynx and the ears the author found diphtheritic membranes in the naso-pharynx and mastoid process, but no micro-organisms in the latter.

Michael.

PRINCE.—Two Cases of Pseudo-Locomotor Ataxy following Diphtheria. *Boston Medical and Surgical Journal, June 13, 1889.*

THE first case was caused by a wound of the finger, whilst performing an autopsy on a diphtheritic patient. The hand and arm swelled, and later on the palate became paretic, and fluid regurgitated through the nose. Two weeks after this his hands and legs became weak, knee jerks were lost, and he showed other symptoms of ataxia. There was no history of syphilis. He got quite well.

The second case was that of a child, four and a half years old, who exhibited paralysis of soft palate, absence of knee jerks, and great ataxia of the legs occurring several weeks after recovery from an ordinary attack of diphtheria. Being an out-patient, he was lost sight of, and the termination of the case is not known.

Barclay J. Baron.

HILL, WILLIAM (London).—Diphtheria with Patches in the Perineal Region. *British Medical Journal, February 23, 1889. Harveian Society of London, February 14, 1889.*

THE author remarked on the rarity of true diphtheritic lesions in the perineum, and notes of two cases were submitted by him. In one case, that of the father of a boy who had died of pharyngo-laryngeal diphtheria,

the disease developed on an old eczematous patch over the coccyx, and was followed by typical post-diphtheritic paralysis. The throat was not affected. The second case was the daughter of the first, aged eight years, whose vulva was found swollen and œdematous, with several small sores and ulcers on the labia. Diphtheritic membrane formed on the tonsils, and ultimately spread to the lungs. Shortly before death (eighth day), feces escaped by the vagina, indicating that the disease had caused perforation of the recto-vaginal wall. In this respect the case was probably unique.

In the discussion which followed mention was made of cases where primary diphtheritic membrane formed over the site of a burn ; where the gums were first affected ; where diphtheria had been communicated by inoculation ; and where the intestine had been the sole part affected

Hunter Mackenzie.

RIEHL (Wien).—**Exanthema in Diphtheria.** (*47 Jahresbericht d. St. Joseph's Kinderhospital in Wien.*)

In malignant cases of diphtheria there sometimes occurs an exanthem, consisting of vesicles and ulcerations. The disease is similar to pemphigus and herpes zoster. The vesicles are often filled with blood or are transformed into ulcers. The disease has a bad prognosis.

Michael.

BOKAI (Budapest).—**Diphtheria with Complications.**

A CASE of pharyngeal diphtheria was complicated with diphtheria of the larynx, which rendered tracheotomy necessary. Total paralysis of the whole right side followed, similar to that produced by embolism of the fossa Sylvii, and three attacks of pneumonia occurred. After an illness lasting one hundred days, the child finally left the hospital much improved.

Michael.

CASSEL (Berlin).—**Two Cases of Uræmia following Diphtheria.** *Archiv. für Kinderheilk., Bd. 11, Heft 1.*

(1) A PATIENT, five years old, suffered from diphtheria followed by albuminuria. Some days later ascites and anasarca occurred, followed by convulsions, hemiplegia, and death. The post mortem examination showed nephritis parenchymatosa to be present. (2) A patient, three years old, was attacked with diphtheria of the pharynx and diphtheritic ulceration of the vulva. Ten days later convulsions, coma, and vomiting set in ; death occurred two days later. The post mortem examination showed nephritis parenchymatosa and fatty degeneration of the heart.

Michael.

LANGSTEIN (Teplitz).—**Diphtheria and its Treatment.** *Prüger Med. Wochenschr., 1889, Nos. 32, 33, and 34.*

A GOOD review of the methods of treating diphtheria most in vogue.

Michael.

RENNERT (Frankfort-on-Maine).—**The Treatment of Diphtheria by Solutions of Corrosive Sublimate.** *Berl. Klin. Wochenschr., 1889, No. 34.*

454 *The Journal of Laryngology and Rhinology.*

THE author recommends local application of the solution. He has treated sixty-two cases, which have all been cured. Michael.

EDITORS OF LANCET (London).—Alcohol in Diphtheria. *Lancet*, December 29, 1888.

AN annotation referring to a recent discussion of this subject by the King's County Medical Association. Early and free administration is recommended. Hunter Mackenzie.

STRONG.—Large Doses of Calomel in Pneumonia and Croup. *The Medical Record*, March 16, 1889.

THE author has treated cases of croupous pneumonia with calomel in doses of twenty grains every three hours, and even began with sixty grains, followed by thirty grains every three hours, until three hundred and sixty grains had been taken, with good results, and with very little catharsis, and no ptyalism. Also he tried the same plan in three cases of croup, giving eighty grains to an infant in ten grain doses, to a boy of six twenty grain doses; all the cases recovered. Barclay J. Baron.

SONNENBURGER (Worms).—Treatment of Whooping Cough with Antipyrine. *Deutsch. Med. Zeitsch.*, 1889, No. 68.

RECOMMENDATION of the internal use of this drug. Michael.

NAEGELI.—A Method of Suppressing the Attack of Whooping Cough. *Correspondenzbl. für Schweizer Aerzte*, July 15, 1889.

THE author describes his own whooping cough. At the beginning of the attack there is a spasm of the laryngeal muscles, including the muscles of the face and jaw, which closes off all air and hinders its entrance into the lungs. If the mouth can be opened, and inspiration can be made, the attack is terminated. The attack can be interrupted by traction of the under jaw if the physician stands before the patient, or by protrusion of the jaw if he stands behind him. By regularly interrupting the attacks in this manner, the whole disorder is ameliorated. Michael.

NOSE, NASO-PHARYNX, &c.

ALLEN, HARRISON.—The Anatomy of the Nasal Chambers. *The New York Medical Journal*, February 2, 1889.

THIS essay is divided into four sections, and amongst a good deal of anatomical description that is not new, we note the following points:—

1. The shape of the anterior part of the middle turbinal. The inferior free border may be abruptly bent, and be free from surrounding parts, or be pressed against them. The anterior part is distinguished clinically

from the posterior by the disposition shown for the bone to be covered with spicules, or the whole region to be hyperostised. The membrane is often abnormally thickened at this point alone.

The anterior border may not be inflected, but be of water-like thickness, yet the bone may be greatly inflated a short distance back.

The anterior ethmoid cells often form a distinct structure, and may be seen projecting like the end of a distended pea pod into the nasal chamber at the widened anterior part. The inflated parts at the places of junction with the turbinals with the main portions of the ethmoid may exert injurious pressure against the septum, especially in the case of the superior turbinal.

2. The shape of the posterior part of the middle turbinal of the right side is commonly less inclined towards the middle line than the left, and it may be horizontal at its upper part, which is very rare on the left side. The left one is often nearly vertical, and held in a narrow choana. If a careful inspection shows an irregular or triangular swelling on the septal side of the smaller of the two images of the nares, and that this swelling is associated with a middle turbinated bone which inclines to the vertical, a diagnosis of posterior deviation of the septum can be made, although the septum may be normal as seen from the front.

3. The diameters of the chambers.

The author examined one thousand seven hundred and fifty skulls of many nationalities in Philadelphia, and found eighteen examples of left choanal asymmetry. Of this number only two showed septal deviation, and three only presented angularity on the left contour line of the septum. In all the above the left choana was distinctly smaller than the right. In nine examples the right nasal chamber was the smaller, and in one only was the septum deviated to the right. These observations, the author considers, contravene Sir Morell Mackenzie's statistics.

Recent European skulls show a greater number of differences in the measurements of the choanæ than those of other races.

Asymmetry is determined by causes which exist independently of the deviation of the septum, always assuming that the posterior free border does not deviate from the vertical.

The study of crania is not the test standard for clinical study, asymmetry of choanæ being really much greater than can be gleaned from ethnological cabinets. The left choana is, as a rule, smaller than the right, and the left middle turbinal is commonly more vertical than the right.

4. The boundaries of the naso-pharynx directly behind the choanæ.

The presence of the posterior ends of the turbinals in the naso-pharynx is not unphysiological, and perfect comfort is compatible with the existence of such masses, their reduction being demanded only if they exert pressure and cause obstruction.

Barclay J. Baron.

RICE.—The Efficacy of the Older Method of Treating Nasal Disease Contrasted with those of To-day. *Medical News*, April 6, 1889.

THIS is an instructive paper dealing principally with affections of the erectile mucous membrane of the nose, and contrasting the failures of the

past, under a stringent treatment, with the successes of to-day under galvano-cautery, trephine, saw and drill.

The author alleges that it has been positively demonstrated that laryngeal and bronchial inflammations are secondary in the majority of instances to nasal disturbances, which is, we consider, not a correct representation of the present position of rhinologists on this question.

Barclay J. Baron.

MEREDITH, JOHN (Wellington).—**The Relation of Hæmorrhages to Unhealthy Surroundings.** *British Medical Journal*, February 16, 1889.

THE author describes two cases of epistaxis—one in a girl of nine, and the other in a man of seventy—which he believes to have been due to “malsany” (a term he proposes to introduce to express insanitary surrounding conditions). In the first case the “malsany” consisted of polluted drinking water, and in the other of this same water, *plus* the exhalations from decaying vegetable matter. Both patients recovered on the removal of the apparent causes of their complaint.

The author's explanation of the direct causations of such cases is—“the vascular system, in the first instance, was imbibing through the digestive system a deleterious element, which vitiated the quality of the blood, and this in its turn, the quality of the vascular coats, producing vascular tension, and this pressing, the vessels gave way at their weakest part, which was the Schneiderian membrane. In the second case the vitiation ensued through the pulmonary system, and very likely through the digestive as well.”

Hunter Mackenzie.

LOEWENBERG (Paris).—**Acoustic Examination of the Nasal Vowels.** *Deutsch. Med. Wochenschr.*, 1889, No. 26.

THE results recorded in this treatise (which should be read in the original) show that the over tones of the French nasal vowels (*an, ein, on*) are like the under thirds of the relative pure vowels (*a, e, o*), and that the non-French nasal vowels (*ang, eng, ong*) are half a tone higher than the lower octave of the relative pure vowels (*a, e, o*).

Michael.

V. BÜNGNER.—**Extensive Kerato-papilloma of the Nose.** *Freie Vereinigung der Chirurgen Berlins Meeting*, June 3, 1889.

ONLY three cases of this neoplasm are recorded in literature. In this case it was combined with ozena and psoriasis of the nasal mucous membrane. This is also the first case of psoriasis of the nasal mucous membrane on record. The patient, sixty-five years old, had always had an ozena, and for a half year obstruction of the nose. The nasal passages were on both sides closed by a very hard, white-coloured cartilaginous tumour, of size larger than an egg. The septum was perforated from pressure of the neoplasm. The tumour was removed by Prof. Volkmann by an incision into the nose. It also affected the frontal bone, but did not affect the anterior nasal wall and the lateral mucous membranes changed by ozena and psoriasis. The greater portion of the septum had to be removed. The defect was filled with iodoform gauze, and the

patient was cured in a short time. The very carefully-made microscopical examination showed that the tumour was not carcinoma but a so-called verruca cancrosa. Such neoplasms of plaster-epithelium only can arise in a nose affected by ozæna, because in this condition the cylinder epithelium is changed in plaster epithelium.

Michael.

BLOCH.—The so-called Nasal Form of Bronchial Asthma. *Volkmann's Klin. Vorträge*, No. 344.

THE author believes that normal respiration by the nose makes respiration by the mouth impossible. Those who are accustomed to apply the nasal method cannot respire during sleep by the mouth. If the nose is now closed by pathological processes, such individuals get, if they are also neurasthenic, attacks of dyspnoea during the night. Upon waking the lungs are already hyperæmic from these attacks. These are the first signs of bronchial asthma. He therefore concludes that these are primarily mechanical disturbances which produce, when combined with neurasthenic conditions, the first spasmodic attacks, and end in typical asthmatic attacks. Treatment must be directed to making free the respiratory passages, but no more.

Michael.

ONODY (Budapest).—A Curious Case of Congenital Occlusion of the Choanæ. *Berl. Klin. Wochenschr.*, 1889, No. 33.

THE patient, eighteen years old, had always had occlusion of the right choanæ. The examination showed that this was due to a synechia between the septum and the lower turbinated. A portion of it was membranous, and could easily be perforated by the galvano-cautery; another portion was osseous, and had to be removed by chisel and saw. A similar case has not yet been described, except in Zuckerkandl's anatomy of the nose, where such a case is described with similar formation. [*Reß* has just lately observed a very similar case.]

Michael.

ROUGHTON, EDMUND (London).—A Cause of Nasal Obstruction. *British Medical Journal*, February 16, 1889.

THE author directs attention to the projecting band of tissue on the outer wall of the nasal cavity at the junction of the skin of the vestibulum with the mucous membranes of the anterior nares, as a cause of nasal obstruction. In such cases, the alæ nasi fall in at each inspiration, and this band and the septum come into apposition so as to completely block the nose.

He recommends the introduction of two hollow vulcanite tubes into the anterior nares at nights; these in time might lead to permanent removal of the obstructing cause.

Hunter Mackenzie.

SPICER, SCANES (London).—Recent Advances in the Treatment of Obstruction of the Nose. *British Medical Journal*, February 9, 1889.

A PAPER read before the Harveian Society of London, January 31, 1889, which contains nothing new.

Hunter Mackenzie.

BRESGEN (Frankfort-on-Maine).—**On the Damage of Obstructed Nasal Respiration, especially in School Children.** *Zeitschr. für Schulgesundheitspflege*, 1889, No. 10.

IMPOSSIBLE nasal respiration produces bad development of the thorax and the lungs, impossibility of work, decrease of mental capacities, chronic catarrh of the respiratory passages, headache, etc. Michael.

KAMMERER, FRED. (New York).—**On Osteomata of the Nasal Cavity.** *Annals of Surgery*, August, 1889.

THE author, after referring to cases recorded by Legouest, Tillmanns, Habermaas, Mott, and Fenger, relates a case which came under his notice at the surgical clinic in Freiburg. The patient was a girl, aged seventeen, who had sustained an injury to her nose by a fall six years before. Symptoms of right nasal obstruction occurred about four and a half years after the fall. When admitted to the clinic the right nostril was completely blocked by a tumour covered with mucous membrane, which was visible both anteriorly and posteriorly, and could be felt by the finger passed behind the soft palate. On opening into the nasal cavity, the tumour was found attached to the frontal or ethmoid bone only, and this attachment was readily severed by a few strokes of the mallet and chisel. Before it could be removed the soft parts had to be reflected from the superior maxilla, about half an inch of which was then chiselled off between the infra-orbital margin and the nasal spine, after which the aperture was found sufficiently large to admit of the tumour being seized by a forceps and removed. The turbinated bones had disappeared, as also the antrum of Highmore, while the septum was deflected to the left. The orbital plate of the ethmoid and the lachrymal bones had also disappeared. The patient made a good recovery. After maceration and section the tumour proved to be an ivory osteoma, weighing $2\frac{1}{4}$ oz., in which no nucleus of spongy tissue was discernible. Maxwell Ross.

KRIEG (Stuttgart).—**On the Methods of Operation for Skoliosis of the Nasal Wall.** *Württemberg Correspond.*, 1889, No. 26.

THE author has operated upon 23 cases with the best results. Michael.

NIKIFOROW.—**The Bacillus of Rhinoscleroma.** *Archiv. für Experimentelle Pathologie*, Bd. 24, Heft 6.

BACTERIOLOGICAL researches upon the nature of this micro-organism, confirming the results of former examinations. Michael.

ABRAHAM (London).—**Nasal Meningocele.** *British Medical Journal*, February 9, 1889.

EXHIBITION of a man, aged thirty-one years, before the West London Medico-Chirurgical Society, February 1, 1889, with a meningocele, occupying the greater part of his nose, and springing from beneath the nasal bones. Hunter Mackenzie.

HARTMAN.—Some Results in the Treatment of Atrophic Rhinitis with the Galvanic Current. *The New York Medical Journal*, March 16, 1889.

THE method of application is that suggested by Dr. Delavan, the negative pole being placed in the nape of the neck, and the positive in the nostrils, using pledgets of cotton wool on insulated wire stems. The strength of the current ought to be very mild at first, and gradually increased. The nasal mucous membrane ought to be thoroughly cleansed before the application, and the length of time varies from four to twenty minutes in different patients. Three or four sittings a week usually suffice. The author's theory of the action of the current is that it is a stimulant one, which sets up molecular change and alters the secreting functions of the tissues. Twenty-one cases have been treated; fourteen are cured, five are under treatment, and two refused to go on with it. Barclay J. Baron.

REYNOLDS and LOVETT.—The Treatment of Post-Nasal Catarrh by the Removal of Nasal Obstructions; with an Analysis of One Hundred and Ten Cases. *Boston Medical and Surgical Journal*, February 28, 1889.

THE importance of breathing through the nose, in order to warm, clean, and moisten the inspired air, is once more insisted on, and the evils of mouth breathing, necessary if the nose be obstructed, are pointed out. The various pathological conditions causing nasal stenosis are enumerated, and the paper especially treats of the methods of removal of hypertrophies of the mucous membrane of the external wall of the organ. After careful cleansing with Dobell's solution and water, a four per cent. solution of cocaine, or pure powdered cocaine in small quantity is then applied, and deliquesced chromic acid freely used. The result of cauterization with this substance is said to be sub-mucous cicatrization, the scar of the mucous membrane being so superficial that it reproduces itself. Of 75 cases thus treated 16 were cured, 38 much improved, 2 not benefited; 19 did not report; 16 were burnt once, 18 twice, and 12 three times. The slough separated usually in about ten days, and, if necessary, the mucous membrane was then burnt again. Thirty-three cases were treated with cleansing solution, followed by spray of sulphate of zinc, iodoform, and ether, or topical application of glycerite of tannin, or iodine and glycerine. The results were most discouraging. The above cases were mostly throat cases, the patients being unaware that they had nasal obstruction, and the presence of turbinated bodies, large enough on either nostril to cause obstruction to free nasal breathing, is the indication for removing them. Barclay J. Baron.

ZIEM (Dantzig).—Intra-Ocular and Nasal Diseases. *Monatssch. für Ohrenheilk.*, 1889, No. 8.

By preventing the normal circulation nasal diseases may produce severe ocular affections. The author describes the case of a man, in whom one eye was extirpated on account of disease and failure of vision, and to whom it was said that these measures would save the other eye. But this eye was also affected, and vision much diminished. After treatment

directed to an empyema of the antrum of Highmore, chronic coryza, and adenoid vegetations, the eye became normal again.

Michael.

KAFEMANN (Königsberg). — **Catarrh of the Recessus Pharyngeus Medius (Bursa Pharyngea, Tornwaldt's Disease) — its Meaning and simple Surgical Treatment.** *T. F. Bergmann, Wiesbaden, 1889, 60 ff.*

THE author presents a complete review of the literature of the question, and agrees with Schwabach that the so-called bursa is merely a space between adenoid vegetations, and no special organ. He, however, acknowledges the worth of Tornwaldt's paper, inasmuch as he was the first who described the symptoms of the disorder, and a method of curing it. He treats the disease with the sharp spoon, and prefers that to the galvano-cautery treatment, which is often followed by dangerous symptoms. He relates twenty cases from his own practice in which he has applied this treatment with good results.

Michael.

EULENSTEIN (Frankfort-on-Maine). — **Congenital Bilateral Osseous Occlusion of the Choanæ—Method of Operation.** *Deutsch. Med. Wochenschr., 1889, No. 39.*

A PATIENT, fifty-six years old, with symptoms of occlusion of the nose was first operated upon for nasal polypi, but without success. Posterior rhinoscopy now showed that the polypi were only secondary, and that the true cause of occlusion was two membranes covered with mucous membrane which closed both posterior nasal apertures. The author now perforated the membranes, which the probe showed to be osseous, by a drill, and enlarged the opening by a nasal saw, and then by dilating with forceps. The patient was cured, and has had no recurrence of the occlusion.

Michael.

ZAUFAL (Prag). — **Colossal Naso-Pharyngeal Polypus.** *Centralverein deutscher Aerzte in Böhmen, July 14, 1889.*

THE polypus was of the length of eleven centimètres, and six centimètres broad. It had protruded below the soft palate, and produced difficulties in swallowing. The obstruction of the nose had dated from seventeen years before. The tumour was removed without any instrument—merely with the fingers. The bleeding was at first very slight, but some days later a hemorrhage followed, so excessive, that tamponning with Belloq's sound had to be employed. Some blood entering the Eustachian tubes, produced inflammation of the ears. Cure resulted.

Michael.

MICHELSON. — 1. **Naso-Pharyngeal Fibroma.** 2. **Tuberculosis of Tongue, &c.** *Verein für Wissenschaftliche Heilkunde in Königsberg, July 29, 1889.*

THE author exhibited a naso-pharyngeal fibroma occurring in a patient sixteen years of age, and also showed a patient in whom tubercular ulcers of the tongue and larynx had been cured by injections of menthol.

Michael.

CLUTTON, H. H. (London).—**A Case of Naso-Pharyngeal Tumour Affecting the Base of the Skull—Removal without External Incision—Recovery.** *Lancet*, December 1, 1888.

IN the case of a boy, aged fourteen years, a large fibroma, occupying the whole of the naso-pharyngeal space, was successfully removed by means of a nasal snare, and a sharp spoon. No recurrence had taken place up to date of publication (two years).
Hunter Mackenzie.

HERYNG (Warschau).—**The Electric Illumination of the Antrum of Highmore in Empyema.** *Berl. Klin. Wochenschr.*, 1889, Nos. 35 and 36.

THE author has tried the method of Voltolini for illuminating the antrum of Highmore by electric light, and has also succeeded in illuminating the velum with good result. For the antrum he applied an instrument like Türk's mouth-gag, on which a small Edison lamp was fixed. In ten cases the diagnosis of empyema could be made, and in seven cases it was confirmed by the evacuation of pus by operation. The author then describes the details of his cases. One of them was a case of osteoma of the antrum. In this case the cavity was opened through the fossa canina, and could then be illuminated by an incandescent light introduced through this opening. In other cases there could also be introduced a small light through opening made by the trocar.
Michael.

MICHELSON.—**Diagnosis and Therapeutics of the Antrum of Highmore.** *Verein für Wissenschaftliche Heilkunde in Königsberg i. Pr., Meeting June 21, 1889.*

BOTH the operation by extraction of a tooth, and that by perforation of the nasal wall, as recommended by Mikulicz, can be performed with good result. The author demonstrated two cases.

He also exhibited *two patients with lupus of the larynx*. The higher degrees of this disease usually produce very few symptoms, so that the disease is believed to be rarer than it really is.
Michael.

JELENFFY (Budapest).—**The Question of the Cleansing of the Antrum of Highmore.** *Berl. Klin. Wochenschr.*, 1889, No. 35.

THE author says that often in pathological cases the opening of the antrum is much larger than is stated by Zuckerkandl from his researches. It is, therefore, often possible to fill the antrum by filling the nose with fluid during mouth respiration, and closing the soft palate by making the mouth assume the shape of a little round opening. The author believes that a wide opening into the antrum causes a predisposition to empyema. If an artificial opening is made through the nose, the procedure may be of great advantage, since cleansing can be performed by the patients themselves.
Michael.

MOUTH, TONGUE, PHARYNX, ŒSOPHAGUS.

SPENCER, W. G. (London).—**Formation of Mucous Cysts of the Mouth.** *British Medical Journal*, February 23, 1889. *Pathological Society of London*, February 19, 1889.

AN explanation of the mode of formation, and of the histology, of these cysts.
Hunter Mackenzie.

SHEILD (London).—**Case of Ulceration of Tongue Cured by Opium.** *British Medical Journal*, March 2, 1889. *Medical Society of London*, February 25, 1889.

A MAN, aged fifty-six years, had suffered from obstinate ulceration of the sides of the tongue and gums. Temperate, and no syphilis; fœtor, and salivation; no glandular enlargement. Under one grain of opium three times daily, he rapidly improved.

The President (Sir William MacCormac) and Dr. Theodore Williams admitted the good results following this treatment in some refractory cases.
Hunter Mackenzie.

SIMPSON (Manchester).—**Constitutional Syphilis.** *British Medical Journal*, March 2, 1889. *Manchester Medical Society*, February 6, 1889.

A BOY, aged fourteen years, suffered from destruction of the soft palate, contraction of the faucial opening, and complete destruction of the tongue. The history pointed to syphilis—rather acquired than congenital.

Hunter Mackenzie.

BAKER and GRANT.—**The Mechanical Treatment for Congenital Cleft Palate.** *Boston Medical and Surgical Journal*, February 28, 1889.

DESCRIPTION of an apparatus for closing the cleft in the palate, and rendering articulation good and easily learned.
Barclay J. Baron.

WILLIAMSON (Newcastle-on-Tyne).—**Salivary Calculi.** *British Medical Journal*, March 9, 1889. *Northumberland and Durham Medical Society*, February 14, 1889.

A MAN was shown, from whom calculi, composed of phosphate of lime, had been removed. He had suffered for two years from a fistula.

Hunter Mackenzie.

ZIEM (Dantzic).—**On Parotitis.** *Monatsschrift für Ohrenheilk.*, 1889, No. 7.

THE author has observed two cases in which there was a complication of parotitis with nasal catarrh, and believes that there exists a relation between the two diseases. In both cases there was also a diminution of the field of vision, which he explains as produced by the disturbance in the circulation in the region of the eye, following upon parotitis.

Michael.

MORGAN.—Acute Œdematous Uvulitis, with Case. *The Medical Record*, June 22, 1889.

THIS occurred in a patient who had had a heavy dinner, and had smoked and drunk moderately. At eight p.m. his throat felt uncomfortable; at midnight and the next morning the uvula was as large as the thumb, and the palate intensely congested with no hyperæmia of tonsils, palatine folds, or pharynx. Scarifying deeply did not appear to be of much service, but a 15 per cent. solution of cocaine quickly reduced it to one-half its former size, and along with a purge and a gargle quickly cured the patient.

The author considers the œdema to have been caused reflexly from the stomach through the sympathetic acting on the vaso-motors, and the well known action of cocaine in reducing hyperemia swelling of the nasal mucous membrane induced him to use cocaine.

Barclay J. Baron.

METZNER (Halle).—Case of Mycotic Tonsillitis—Death. *Berl. Klin. Wochenschr.*, 1889, No. 29.

A PATIENT, twenty-three years old, became feverish, and was attacked with pain in the throat. Examination only showed simple tonsillitis. Two days later high fever occurred, followed by affection of the right lung. Death followed two days later. The post mortem examination revealed purulent mediastinitis, pericarditis, and purulent pleuritis. In the right tonsil an abscess of the size of a pea was discovered. Between the left tonsil and the thyroid gland purulent fluid was found. The same fluid infiltrated the tracheal and œsophageal tissue, reaching to the diaphragm. On the diaphragm was found a whitish-yellow abscess. Bacteriological examination showed very numerous micro-organisms. There can be no doubt that this was a case of septicæmia, caused by the tonsillar affection.

Michael.

HABERKORN (Glogau).—Treatment of Inflammation of the Tonsils, including Diphtheritic. *Centralbl. für Chirurgie*, 1889, No. 32.

THE author applies a powder of salicylic acid to the tonsils, and prescribes the internal use of the same drug.

Michael.

MORGAN (Sunderland).—Papilloma of Tonsil. *British Medical Journal*, March 9, 1889. *Sunderland and North Durham Medical Society*, March 9, 1889.

A GIRL, aged thirteen years, had suffered from the complaint for four years. The growth had been twice removed. It was now about the size of a small egg.

Hunter Mackenzie.

HALL, HAVILAND (London).—Deep Epitheliomatous Ulceration of the Right Tonsil. *British Medical Journal*, February 16, 1889.

LIVING specimen exhibited before the Clinical Society of London February 8, 1889.

Hunter Mackenzie.

ALLEN.—The Surgical Treatment of the Tonsils and Allied Bodies when a cause of Pharyngeal Irritation. *Medical News*, June 22, 1889.

THE author suggests passing an aneurism needle through the tonsil, and dragging on it, in order to bring it into view as useful in some cases. He also describes the tonsil as being composed of an upper and lower part "like beans in a pod," the lower being in advance of the upper, and between them pellets and secretion are apt to lodge and irritate, and must be removed by scoops. The lower "tonsil-mass" may adhere to the anterior or posterior palatal folds, the latter being a source of irritation, which can be cured by division of the adhesion in a way which is fully described.

Galvano-cautery is recommended for destroying the infra-tonsillar glands, which, if hypertrophied, are apt to cause irritating cough by impeding the action of the epiglottis.

Barclay J. Baron.

LENNANDER, K. G. (Upsala, Sweden). — **Cases of Pharyngeal Erysipelas.** *Upsala Läkareförening's Föerhandlingar*, Vol. 24, pp. 530 to 585.

THIS article gives a description of an epidemic of pharyngeal erysipelas observed in the hospital of Upsala, and a thorough review of the whole question of pharyngeal erysipelas, and its relation to erysipelas of the skin.

Case 1: The patient was a clinical clerk who, while there were cases of erysipelas in the hospital, was attacked with rigors and dysphagia. Examining his throat, he saw that it was deeply purple-red and shiny. The next day the patient felt better, but the throat was very much swollen and red. The third day pains occurred in the right ear, and the following night discharge from this ear (acute inflammation of the tympanic cavity). The fourth day there was swelling without any redness, about the right external ear. On the fifth day the external meatus on the right side was very much swollen and red, and on the seventh the whole external ear was cedematous and swollen and dark-red; this tumefaction assumed on the following day the appearance of a typical "erysipelas faciei," the temperature rising to 39.2; on the tenth day the erysipelas, however, ceased to spread, and soon disappeared entirely. The redness and swelling of the pharynx began already to disappear on the ninth day, and disappeared entirely on the nineteenth day. The perforation of the membrana tympani healed, and the patient recovered.

Case 2 was that of another clinical clerk who, two months later, while there still was erysipelas in the wards, was attacked with erysipelas pharyngis, the illness taking nearly the same course as the previous case, only the swelling of the pharynx was greater, and of an cedematous character, and the temperature rose to 40.4. The inflammation of the middle ear set in on the seventh day, and was followed by erysipelas at the external meatus, and the whole external ear. Recovery followed.

Case 3: The patient, a lad, aged sixteen, with chorea, was attacked with erysipelas of the pharynx and of the skin over the parotid region *simultaneously*, the latter spreading extensively and assuming a phlegmonous character. On the twenty-ninth day, while the pharynx was still very red, but without tumefaction, the process spread to the

larynx and caused stenosis, so that tracheotomy had to be performed. Four days later the cannula, however, was removed, and the breathing remained free, but the erysipelas of the skin spread more and more, and symptoms of septic infection developed. The patient, however, at last recovered.

Case 4 : A young girl, aged twenty-one, had come to the hospital for acute laryngitis. Ten days later considerable dysphagia existed, and the tonsils were seen to be somewhat red and swollen ; the following day there appeared a slight tumefaction of the left side of the face, developing the following day to a typical erysipelas faciei.

Besides these cases, four other patients during the same period had similar conditions of the throat, but as there was not any erysipelas of the skin in these cases the diagnosis of pharyngeal erysipelas is somewhat doubtful. In all these cases, however, the patients had been more or less in contact with the four other cases described.

Holger Mygind.

GLEITSMANN.—Hyperplasia of the Lymphatic Tissue of the Pharynx and Naso-Pharynx. *Medical News*, January 19, 1889.

AFTER alluding to the anatomy of the parts in question, the author proceeds to discuss hypertrophy of the pharyngeal, faucial, and lingual tonsils.

The symptoms of adenoid growths in the naso-pharynx are enumerated carefully, and the author found, as do all who investigate their cases thoroughly, that the disease is much commoner than is generally supposed. The sexes were about equally affected, and whilst some children may have had naso-pharyngeal troubles from birth, two years and older, *e.g.*, from five to fifteen years of age, are most commonly seen. Hypersecretion in children is seen generally in the nose, in adults in the pharynx. (This point agrees with my own observation.) The voice is "dead," like it is in paralysis of the soft palate, the functions of which are interfered with by abundant vegetation. The interference with respiration, and the effect of this on the configuration of the chest, and on the general health, physical and mental, is insisted on. Also aural troubles have been cured by the author, by curing the naso-pharyngeal disease. (This is often neglected even by specialists, and failure to cure deafness and middle ear disease results.)

The diagnosis is generally made by inserting the finger into the naso-pharynx, but no mention is made of Semon's method.

Treatment consists in the use of the forceps and other instruments.

The author, in speaking of the removal of hypertrophied tonsils takes up two points only, viz.—serious hæmorrhage after tonsillotomy, of which he has had but three cases in a very large operating practice. He looks upon hyperæmic, angry-red looking tonsils, not, however, in a state of acute inflammation, as contra-indicating removal by the knife.

Also when the instrument cuts through the tissue with difficulty and finds much resistance, or when we hear or feel a grating sound, we may be prepared for subsequent hæmorrhage. An alternative measure to the knife is galvano-cautery, by immersing the point into a crypt or into the

mass of the tonsil itself. Especially is this advisable when the anterior pillar is adherent to the front of the enlarged tonsil.

The last part of the paper deals with hypertrophy of the "lingual tonsil," or tissue behind and below the circumvallate papillæ, which is commonest in adults, and so differs from hypertrophy, and pharyngeal and faucial tonsils, which are commonest in children.

Eight symptoms are mentioned as occurring in this condition :—

1. Foreign body or pressure in the throat, attempts at deglutition being frequent.
2. Interference with speech and singing voice owing to the epiglottis being pressed backwards by the growth, and greater exertion being required to make a sound.
3. Pain due to follicular tonsillitis of this tonsil.
4. Shooting radiating pain to ear, larynx, shoulders, &c.
5. Cough, probably due to friction of the epiglottis and tongue against each other.
6. Asthma.
7. Slight bleeding, especially in the morning.
8. Formation of abscess.

Treatment consists in application of Lugol's solution, caustics, or galvano-cautery, the author employing an irido-platinum snare in suitable cases.

Barclay J. Baron.

DOYLE, H. MARTIN (London).—**A Coin Retained in the Œsophagus Four Months.** *Lancet*, November 10, 1888.

NOTE of the case of a boy, aged four years. The coin was ultimately expelled by vomiting.

Hunter Mackenzie.

LENNANDER, K. G. (Upsala, Sweden).—**Cicatricial Stricture of the Gullet in a Child, aged Two Years—External Œsophagotomy—Recovery.** *Upsala Lækareförening's Föerhandlingar*, Vol. 24, pp. 470 to 482.

THE patient, a weak and ricketty child, aged two years and two months, had two months previously drunk about a teaspoonful of a fluid, used for washing purposes, which contained about twenty-five per cent. of caustic soda. Symptoms of stricture of the gullet had developed quickly, and the child was at last not able to swallow even water. The œsophageal bougie stopped twelve to thirteen centimètres below the front teeth, the stricture being situated just above the sternum. External œsophagotomy was performed under chloroform, the incision of the gullet being followed by the introduction of Maisonneuve's urethrotome ; after which a Benniqué's probe, No. 12 (Charrière's measure), and afterwards No. 14, was introduced. By using successively larger bougies, filled with lead, at last No. 19 could be introduced. The edges of the wound were filled up with silk ligatures, which, however, were not tied in a knot, and a soft Nélaton's catheter, No. 15, was introduced permanently. The patient was now fed through this tube, which three days later was replaced by No. 17, and later by No. 19. On the thirteenth day the catheter, after having been removed

could not be replaced through the wound, but was easily introduced through the nose. This, however, gave rise to bleeding from the nose and fever, and made the little patient very uneasy, so the catheter was entirely removed, and the patient allowed to swallow food, partially with success. The gullet was, however, frequently bougied (which several times caused dysphagia, in the author's opinion, because he used the larger sizes, 25 and 26, the first time). The patient was seen last time four months after the operation, the operator in the meantime having used bougie No. 30 twice a week; the child was doing well in every respect, and was able to swallow any food.

Holger Mygind.

MARCHAND.—Carcinoma of the Œsophagus. *Aertztlicher Verein zu Marburg, December 12, 1888.*

THE author showed a specimen of œsophageal carcinoma from which the patient had been affected for five years. It had caused stricture and paralysis of the left recurrent nerve, which was embedded in the carcinomatous mass.

Michael.

PYE, WALTER (London). — A Case of Œsophagotomy — Remarks. *British Medical Journal, March 9, 1889.*

THE operation was performed on account of the impaction of the gullet of an artificial plate and teeth. The patient died on the fifth day after the operation, of pulmonary effusion (or œdema) due, it is suggested, to some injury to the nerve-governing mechanism of the lungs—vagus or sympathetic.

Hunter Mackenzie.

SYMONDS, C. (London).—Three Cases of Malignant Stricture of Œsophagus Wearing Short Tubes. *British Medical Journal, March 2, 1889. Clinical Society of London, February 22, 1889.*

EXHIBITION of cases.

Hunter Mackenzie.

SMITH, F. CLARENCE (India).—Cancer of the Œsophagus—Gastrostomy. *British Medical Journal, March 2, 1889. South Indian and Madras Branch, British Medical Association, August 3, 1888.*

THE patient died the day following the operation. A fistulous opening between the trachea and the œsophagus was found after death.

Hunter Mackenzie.

LARYNX, &c.

MULHALL, J. C. (St. Louis).—Cure of the Falsetto Voice. *Inter. Jour. of the Med. Sciences, August, 1889.*

CASE of a man, aged twenty-five, in whom the puerile voice persisted. Though it was high-pitched and squeaky, the important fact was elicited that in laughing it was of low pitch. Two laryngoscopists had diagnosed

paralysis, and applied electricity. Dr. Mulhall, however, observed that so far from there being any paretic condition present, the true and false cords during phonation approximated more closely than they should have done. There was apparently hyper-tension of the thyro-arytenoid muscles. A cure was effected by teaching the patient to speak in low tones. The same condition was observed in two other cases, and a similar treatment was successful.

Maxwell Ross.

HULTKRANTZ, J. VILHELM (Sweden). — **On the Respiratory Movements of the Diaphragm.** *Upsala Läkarsöfverens Foerhandlingar*, Vol. 24, pp. 507 to 529.

THE author has made a series of experiments on himself and five other persons in order to study the respiratory movements of the diaphragm by means of introducing a thin indiarubber balloon of four to five centimètres diameter into the stomach through the gullet. The balloon is then blown up through a long indiarubber tube fastened on the end of it, with so much air that it cannot be withdrawn, and the movements of the balloon caused by the movements of diaphragm are inscribed on a rotating Marey's cylinder by means of a thread going through the tube, which is stretched over a pulley by means of a weight. The results of the experiments were as follows:—During normal quiet breathing the cardiac portion of the author's diaphragm moved on an average 10·5 millimètres *up and down*, while in the other individuals experimented on the figures varied from 5·5 to 11·5 millimètres. The extent of the movements varied in the same person at different times according to the position of the individual (the figures being much smaller in the recumbent position), to the occupation previous to the experiment, to the different pressure of the clothes, and according to the circumstance, whether the individual had just had a good meal or not. By forced breathing the author's diaphragmatic movements increased to 42 millimètres; but when attention was paid to pushing the abdominal wall forward, the author was able to get as far as 63 millimètres. The highest figure, 81, was, however, obtained by another individual, who was a good singer.

The mere passive movement upwards of the diaphragm by contraction of the abdominal muscles (the glottis being open) varied in the different experiments from 16 to 24 millimètres. A few experiments were made on a woman, the result being that, although the habitual movements of the diaphragm were very little, still the power of the diaphragm was not very small.

Dr. Hultkrantz tried besides in some cases to measure the relation between the power of the abdominal and thoracic breathing by enclosing the body of the person experimented on in two air-tight chambers, meeting each other at the lower border of the thorax. With all due reservations, owing to the small number of experiments, the author thinks that of 490 cubic centimètres inhaled by himself about 320 correspond to the expansion of the thorax, and 170 to the lowering of the diaphragm.

Holger Mygind.

DELAN, BRYSON.—Further Investigations as to the Existence of a Cortical Motor Centre for the Human Larynx. *The New York Medical Journal*, June 22, 1889.

A COMPLETE record of a case of a merchant, sixty years of age, who suffered from an attack of left hemiplegia, with ptosis, paralysis of left side of the face and tongue, and whose voice, from being sonorous, became cracked, piping, and uncertain. All the symptoms began to clear up, and eventually almost disappeared, except the laryngeal ones, and the laryngoscope showed that there remained complete abductor paralysis of the left vocal cord, the position of which was in the median line. This continued for ten years, when the patient died from valvular lesion of the heart and pulmonary oedema.

The autopsy revealed extensive atheromatous disease of the vertebral and basilar arteries, with deflection outwards of the left vertebral, but with no embolus or thrombus in them. The posterior cerebrals, middle cerebrals, left anterior cerebral, and carotid were also atheromatous. In the left hemisphere, at the summit of the internal capsule, and in its anterior half, there were the remains of an old area of softening, and below and a little outside this there was a small space with smooth walls, in which a branch of the middle cerebral had lain. In the right hemisphere, in the upper portion of the middle third of the internal capsule, opposite to the anterior extremity of the optic thalamus, a small area of softening was found, involving the upper limit of the internal capsule for a quarter of an inch from before, backwards, and the upper portion of the outer body of the lenticular nucleus. In the right choroid plexus, a fatty tumour, $\frac{5}{8}$ by $\frac{3}{8}$ by $\frac{1}{4}$ of an inch, was found in the descending horn of the lateral ventricle. In the right crus cerebri, there was an indication of descending degeneration. A softening mass was found in the left segment of the medulla, situated in the path of the intra-medullary root-strands of the vagus nerve, and it involved a small portion of the ascending root of the trigeminus. This mass contained hyperplastic neuroglia, and was not of recent origin.

The ventral vagus nucleus and the recurrent vagus root-strands were present on the right side, but absent on the left side. Many of the extra medullary root fasciculi of the left vagus were degenerated.

The focus of softening on the medulla occurring simultaneously with the lesion in the internal capsule of the opposite side is considered by the author to be instrumental in the production of the permanent laryngeal paralysis more by the complete destruction of the ventral or motor vagus than by interference with the root-strands, many of which passed through the old softened focus intact.

The laryngeal symptoms are not considered to be due to a cortical lesion; hence the motor character of the ventral vagus nucleus is confirmed clinically, and the author believes that laryngeal paralysis of central origin is caused by bulbar, and not by cortical injury, as a rule.

Barclay J. Baron.

HOWARD, BENJAMIN.—The Raising of the Epiglottis by Utmost Manual Extension of the Head and Neck. *British Medical Journal*, February 2, 1888.

THIS is a supplementary explanatory note, in which the author points out that, "from an apparent fear of doing harm, that part of the "extension I have described by the word 'utmost,' has been stopped "just short of, whereas this is just the part of it which, to secure the "post oral airway, is indispensable. Even this will be ineffectual unless "with it is combined a perpendicular pharynx, and a horizontal os palati. "To dispel the fear of harm it should be understood that there is a "definite and insurmountable safety check. This consists in the firm "wedging together of the cervical spinous processes, which form a solid "and unbreakable arch."

Hunter Mackenzie.

MOURE.—Acute Œdema of the Sub-Epiglottic Region and lower Pharynx in a Diabetic Patient. *The New York Medical Journal*, March, 1889.

LARYNGOSCOPIC examination revealed a tumefaction, red at its borders and almost transparent in its centre, situated near the base of the tongue, and involving the ary-epiglottic fold, and projecting into the pyriform sinus. It came on after taking a trivial cold, and speedily disappeared under poultices, emollient fumigation, and a saline purge. Diabetes was suspected from the slightness of the cause, and the urine had a sp. gr. of 1039, and contained sixty grammes of sugar per litre. The author recommends the examination of the urine in all cases of laryngeal œdema, except when the cause is evident, *e.g.*, burns, foreign bodies, traumatism, etc.

Barclay J. Baron.

RETHI (Wien).—On Pachydermia Laryngis. *Wiener Klin. Wochenschr.*, 1889, No 27.

A PATIENT, forty-three years old, often became hoarse from catching cold. After the acute laryngitis was cured, there developed two greyish-red tumours on each *processus vocales*. The upper portion of the growths was concave.

Michael.

PUTELLI.—Cartilaginous Tumours of the Larynx. *Med. Jahrbuch*, 1888, II-ft 7.

A PATIENT, fifty years old, suddenly died from asphyxia. The post mortem examination showed that the posterior part of the cricoid cartilage presented a large tumour of hyaline cartilage nearly filling the whole lumen of the larynx.

Michael.

MICHELSON.—Laryngeal Growths. *Veren für Wissenschaftliche Heilkunde in Königsberg. Meeting*, March 27, 1889.

THE author showed a patient who had had a cyst of the right vocal cord, which had been operated upon by the knife. He also showed papillomata removed from a girl twenty years of age, and also exhibited a patient with a round red tumour (fibroma) inserted on the right ventricle of Morgagni. The author has removed a part of the neoplasm, but its total extirpation is very difficult indeed.

Michael.

TSAKYROGBOAS (Smyrna). — **Case of Intra-Laryngeal Polypus.**
Monatssch. für Ohrenheilk., 1889, No. 7.

A patient, sixty-five years old, related that she had a foreign body in the throat, which made her dyspnoeic, and caused difficulty of swallowing. To demonstrate this she introduced two fingers into the mouth and brought into the mouth a polypus nearly 7 centimètres long. After having marked the location of the polypus with a pincette, the author saw with the laryngoscope that it was inserted into the outer wall of the larynx on the left lateral aspect of the cricoid cartilage. It was removed with a laryngeal knife. A similar case was published in 1854 by Middeldorpf.
Michael.

BROWNE, LENNOX (London). — **Congenital Growth of Larynx.**
British Medical Journal, March 9, 1889. *Pathological Society of London*,
March 5, 1889.

THE subject was a child, aged three years, who since birth had suffered from laryngeal papillomata. These had blocked the glottis to such an extent as to threaten asphyxia. Intubation was attempted, but, causing hæmorrhage, tracheotomy was performed. Several hæmorrhages occurred before death, which took place forty hours afterwards.

Necropsy showed that the first bleeding had taken place from abrasion of a growth by the intubation instrument, and that the later ones had arisen from the lungs, never having been properly expanded, giving way under the suddenly increased volume of air afforded by the tracheotomy tube.

The case points to the risk of attempting intubation in cases of laryngeal growths, and is interesting as presenting a hitherto unrecorded danger of tracheotomy in cases of congenital laryngeal obstruction.

Hunter Mackenzie.

HARRIS, THOMAS (Manchester). — **Laryngeal Polypi.** *British Medical Journal*, March 2, 1889. *Manchester Medical Society*, February 6, 1889.

A WOMAN, aged forty-three years, had suffered from almost complete aphonia from the age of thirteen years. The author found the larynx nearly full of polypi, only a small aperture existing at the posterior part through which the patient could breathe. The greater number of these growths were now removed by laryngeal forceps, and were found to be of a simple papillomatous nature.

Although these growths had probably existed for over twenty years, and the patient had been repeatedly under treatment for hoarseness and difficulty in breathing, the complaint had never been diagnosed until a few months previously, when a laryngoscopic examination was made for the first time !

Hunter Mackenzie.

BOOTH, J. MACKENZIE (Aberdeen). — **Thyrotomy for Laryngeal Tumour.** *British Medical Journal*, March 2, 1889. *Aberdeen Branch, British Medical Association*, December 19, 1888.

EXHIBITION of a patient operated on by Dr. Ogston four months

472 *The Journal of Laryngology and Rhinology.*

previously, for an infra-glottic papilloma with a broad base occluding the glottis. No recurrence ; moderate dysphonia ; breathing now quite free.

Hunter Mackenzie.

ROSER.—**Laryngeal Carcinoma.** *Aertztlicher Verein zu Marburg, December 12, 1888.*

THE author exhibited a patient, forty-two years of age, in whom he had extirpated half the larynx, the epiglottis, and hyoid bone four weeks previously on account of carcinoma.

Michael.

GREENWOOD.—**Epithelioma of the Vocal Cords.** *British Medical Journal, March 2, 1889. Metropolitan Counties Branch, February 21, 1889.*

EXHIBITION of case, without remarks.

Hunter Mackenzie.

HANDFORD H. (Nottingham).—**Carcinoma of the Left Bronchus and Root of the Lung.** *British Medical Journal, February 9, 1889.*

NOTES and specimens from three cases (Pathological Society of London, February 5, 1889). In one case the trachea for about three-quarters of an inch above the bifurcation was affected by the new growth, and the consequent stenosis was a leading feature in the history. All the cases terminated by profuse hæmoptysis.

Hunter Mackenzie.

GOUGUENHEIM.—**Cancer of the Larynx — Tracheotomy — Buccal Perforation opening into the Maxillary Antrum.** *The New York Medical Journal, March 9, 1889.*

THESE two cases were shown at the Tenth Annual Congress of the American Laryngological Association. In the first, owing to a large growth around the tracheotomy tube, it was necessary to insert a very long cannula, which was made by Mathieu, of Paris, the first part of which is rigid, while the lower, or tracheal two-thirds, are movable, and consist of a continuous spiral, the rings of which are attached to each other. The second case is that of a man who had a sinus which admitted the end of the little finger, opening into the cavity of the maxillary antrum from the left side of the hard palate. A probe could be passed through it into the middle meatus of the nose. It is probably due to a localized syphilitic necrosis.

Barclay J. Baron.

GULLIVER (London).—**Syphilitic Ulceration of Trachea and Large Bronchi.** *British Medical Journal, March 9, 1889. Pathological Society of London, March 5, 1889.*

SPECIMEN from a woman, aged thirty-two years. Transverse ulcers were found in the lower part of the trachea, and in the bronchi, with constriction, which had caused stridor. There was also ulceration of the palate. The cause of death was broncho-pneumonia.

Hunter Mackenzie.

BILLINGS.—**Syphilitic Stenosis of the Larynx, with Tracheotomy.** *The Medical Record, June 1, 1889.*

THE stenosis was due to a large gumma, involving the ary-epiglottic fold, the ventricular bands, and overhanging more than half the glottic space. After tracheotomy had been performed, iodide of potassium was pushed,

which could not be done before the operation on account of irritation and dyspnoea, and in three weeks the tube was removed, and respiration and voice were good.

Barclay J. Baron.

KORKUNNOW (München).—On the Origin of Tuberculosis Ulcers of the Larynx, and the relation of the Tubercle Bacilli to them. *Deutsch. Archiv. für Klin. Med.*, Bd. 45, Heft 71-2.

FROM very exact microscopical examinations the author has found that the bacilli are propagated from the lymphatic spaces, that they are always more numerous in the sub-epithelial tissue than in the epithelial layers; he also has found tubercles in places where the epithelium is intact. He concludes that laryngeal phthisis is therefore not produced by infection by the sputum, but by propagation of the micro-organisms through the lymphatic channels of the infected lungs. The laryngeal affection must therefore be viewed as secondary to tuberculosis of the lungs.

Michael.

LANDGRAF.—Laryngo-stenosis. *Gesellschaft der Charité Aerzte in Berlin*, March 7, 1889.

THE patient exhibited had had the condition since childhood. The epiglottis was fixed by cicatricial bands to the posterior pharyngeal wall. The larynx was covered with a thick membrane, which could be perforated by a probe. There were also ulcerations on the posterior pharyngeal wall. The ulceration was cured by mercury and iodide of potash. Two years ago tracheotomy was performed without narcosis, as the patient was not susceptible to chloroform. Cocaine could not be applied, so that internal treatment was very difficult to carry out. It was yet possible to cut the membranes with a knife, and to employ dilatation with Schroetter's bougies. As the patient could not well support this treatment, the membrane was resected by a double-ring knife; and bougies could then be introduced. Now, two years after, the cannula could be removed.

The same author showed a *tubercular tumour* removed with Sir Morell Mackenzie's cutting forceps.

Michael.

PORT (London).—Paralysis of Recurrent Laryngeal Nerve. *British Medical Journal*, March 9, 1889. *Hunterian Society of London*, February 27, 1889.

A MAN, aged twenty-five, was injured from the wheel of a heavy cart having past over the lower part of his chest, without fracture or external injury resulting. Effusion into the left pleural cavity was detected on the third day. The left vocal cord was paralysed, but fairly recovered in about three months under the use of the interrupted current. The paralysis was supposed to be due to extensive parenchymatous hæmorrhage in the mediastinum, with formation of, and pressure by, a clot, which had since been absorbed.

Hunter Mackenzie.

TAYLOR, W. S. (Livermore, Cal.).—Death from Impaction of a Collar Button in the Larynx. *Occidental Medical Times*, July, 1889.

OCCURRED in the case of a Portuguese female child, aged seven.

Maxwell Ross.

SUTLIFF, F. B. (Sacramento, Cal.).—Two Cases of Scald of the Upper Air Passages from Inhaling Steam. *Occidental Medical Times*, July, 1889.

BOTH patients were plumbers, and had been working at the water back of a stove, the pipes of which were obstructed. The first man, after blowing into the pipe, unmindful of the high temperature of the water, began to suck it, when his mouth was suddenly filled by a jet of steam and water. Tracheotomy at one time seemed necessary, but in less than twenty-four hours the breathing began to improve, and in a few days he had quite recovered. The second man, while working at the same pipe in the afternoon of the same day, got some hot water into his mouth, but not of a higher temperature than was sufficient to cause a smart pharyngitis.

Maxwell Ross.

COLLIER, JOSEPH (Manchester).—Tracheotomy. *Lancet*, December 22, 1888.

THE author describes and figures a grooved dilator for the purpose of facilitating the easy introduction of the cannula.

Hunter Mackenzie.

KOBLER (Wien).—Foreign Bodies in the Bronchi. *Wiener Klin. Wochenschr.*, 1889, No. 33.

THE author has observed in Schroetter's clinic two cases of bronchiectasis following the aspiration of foreign bodies. The first case occurred in a man, fifty years of age, who did not give any account of a foreign body. Clinically, he exhibited a simple bronchiectasis. The post mortem examination also revealed bronchiectasis, but the cause of it was discovered to be the presence of a piece of bone in the left bronchus. The same cause was found in a second case of bronchiectasis, occurring in a patient forty-one years of age, who again did not remember having aspirated any foreign body. At the post mortem examination a shirt button was discovered in the right main bronchus.

Michael.

NECK, &c.

KOCHER.—The Statistics of Goitre in the Canton Berne. *Berne*, 1889, 19 ff.

THESE researches embody observations made on 76,606 school children, and lead to the conclusion that drinking water is primarily the cause of the goitre. The water causing goitre contains many micro-organisms; and by injection of these organisms, swelling of the thyroid gland can be produced in rabbits.

Michael.

PEARSE, WILLIAM H. (Plymouth).—A Case of Exophthalmic Goitre. *Prov. Med. Jour.*, May, 1889.

THE case of a married woman, aged twenty-eight, where, though she was

never out of England, there appeared to be a possible malarial influence at work. The treatment under which improvement took place consisted in the administration of quinine, arsenic, and cod liver oil. **Maxwell Ross.**

SCHWARTZ.—Experimental Researches on the Consequences of Extirpation of the Thyroid Gland. *Inaugural dissertation*, 1888.

FROM experiments performed on five dogs the author has found an increase of the electric irritability of all nerves, in consequence of extirpation of the thyroid gland.

Michael.

SCHULZE (Dorpat).—On the results of Extirpation of the Thyroid Gland in Dogs. *Neurol. Centralbl.*, 1889, No. 8.

THE author has found an increase in the electrical irritability and spasmodic phenomena following upon extirpation of the gland; but he remarks that it is not possible to identify cachexia strumipriva in men with the condition produced in the dogs.

Michael.

ROGOWITCH.—On the Condition of the Hypophyses subsequent to Extirpation of the Thyroid Gland. *Ziegler und Nauwerck's Beiträge zur Path. Anat., etc.*, Bd. 10, p. 453.

THE author describes the normal histology of the hypophyses in rabbits. In consequence of the extirpation of the thyroid gland he found in 26 rabbits a formation of vacuoles in the hypophyses.

Michael.

JESSOP (Retford).—Partial Thyroidectomy. *British Medical Journal*, March 2, 1889. *Sheffield Medico-Chirurgical Society*, February 14, 1889.

PAPER read, but not reported.

Hunter Mackenzie.

COCKING (Sheffield).—Myxœdema. *British Medical Journal*, March 2, 1889. *Sheffield Medico-Chirurgical Society*, February 14, 1889.

EXHIBITION of patient, a woman aged forty-four years.

Hunter Mackenzie.

LIMONT (Newcastle-on-Tyne).—Hodgkin's Disease. *British Medical Journal*, March 9, 1889. *Northumberland and Durham Medical Society*, February 14, 1889.

IN this case the trachea was pushed to the right side by the enlarged glands. Amongst the symptoms were epistaxis and hæmorrhage from the bowels.

Hunter Mackenzie.

PORTER (India).—Lymphadenoma. *British Medical Journal*, February 9, 1889.

NOTES of the case of a Eurasian, aged seventeen years. This is stated to be the first example of lymphadenoma recorded in India.

Hunter Mackenzie.

CATON, R. (Liverpool).—Narcolepsy. *British Medical Journal*, February 16, 1889. *Clinical Society of London*, February 8, 1889.

A MAN, aged thirty years, had lately become very stout, and so drowsy

as to fall asleep when walking. During sound sleep a convulsive closure of the glottis occurred, respiration being suspended for a minute, or a minute and a half, and cyanosis becoming very marked. These attacks came on at short intervals, both by day and by night, and were accompanied by marked salivation. The symptoms were referred to excess of poisonous extractives, leucomaines or ptomaines, in the blood, for the existence of such bodies having narcotics, convulsant, and salivating actions, has been demonstrated. Under treatment by naphthalin, iodoform, and charcoal, the asphyxial symptoms and the salivation entirely subsided, and the drowsiness greatly decreased.

A discussion followed, in which reference was made by a few members to several somewhat similar cases.

Hunter Mackenzie.

Obituary.

RUDOLF VOLTOLINI.

THE science of laryngology sustained a grave and irreparable loss on the 11th of September. After a short illness, our honoured countryman Rudolf Voltolini passed away in his seventy-first year. One of the pioneers of the modern science of laryngology and rhinology, he prosecuted this work up to the last days of his existence, with juvenile zeal. Born on the 17th January, 1819, at Elsterweda, he studied from 1838-44 at Breslau and Berlin, practised as a physician in Berlin, Gross-strelitz and Lanenberg, and in 1852 became "Kreisphysicus" in Falkenberg, in Ober Schlesien. In 1860 he was *privat docent* at Breslau, and was appointed professor of laryngology and rhinology in 1868. For twenty-one years he has remained at this post an ornament to the professoriate.

Voltolini was one of the first to acknowledge the great merit of the newly discovered methods of examination of the nasal cavities and of the larynx. Anterior rhinoscopy as a scientific method must indeed be regarded as his own creation. He was the first to apply Middeldorpf's galvano-cautery to the treatment of diseases of the upper respiratory passages. He facilitated its application by the invention of many instruments. Voltolini's speculum, and afterwards his palate hook, gave to many the means of making important discoveries, and his "sponge method" facilitated operations upon laryngeal neoplasms. Up to the last, he was occupied in practising and perfecting many other methods of treatment which will bear his name, and the value of which will be proved by others. One of these is the reproduction of Czermak's method of illumination with the new Edison's incandescent lamp, which will facilitate the diagnosis of diseases of the antrum of Highmore, and will be of value in the differential diagnosis of benign and malignant neoplasms. Another method advocated by him is that of electrolysis, which would seem likely to supersede other methods for the treatment

of retro-pharyngeal tumours if further experience confirms the great advantages set forth by him.

Voltolini published a great many short papers in various medical journals, specially contributing to the pages of the *Breslauer Aerztliche Zeitschrift* and the *Monatsschrift für Ohrenheilkunde, Laryngologie und Rhinologie*, which he, along with Weber Liel, and other specialists, founded in 1867, and of which he remained collaborator up to his death.

He also published the following books :—

“Rhinoscopie und Pharyngoscopie.” Jubiläumsschrift der Universität Breslau im Jahr., 1861.

“Die Galvanokaustik und deren Anwendung bei Kehlkopfleiden,” 1876.

“Die Rhinoscopie und Pharyngoscopie,” im Jahr., 1879.

“Die Krankheiten der Nase, und des Nasenrachenraums,” 1888 (his last great work, which was reviewed in this Journal).”

Original and philosophical in form, and fertile in ideas, his works will always remain interesting and learned guides to the physician, landmarks of the progress of our special science, and for their author “monumenta aere perennius.”

Michael.

ASSOCIATION MEETINGS.

Sixty-Second Congress of German Physicians and Naturalists,

Held at Heidelberg, September 17—23, 1889.

SECTION OF LARYNGOLOGY AND RHINOLOGY.

THE PRESIDENT of the Section (Dr. JURASZ, of Heidelberg), referring to the lamented death of Professor VOLTOLINI, proposed that the event should be marked by all members rising : after which a telegram of condolence was forwarded to the members of the late Professor Voltolini's family by the assembled meeting.

A paper was read upon *Rhinological and Laryngological Operations in the Cocaine Era* by Prof. B. FRAENKEL, of Berlin.—Referring to the customary doses of cocaine, as employed for operations about the nose (10 to 15 per cent.) and larynx (20 per cent.), the author fixed the maximum dose at 0.1 grammes. Cases of intoxication occur probably due to idiosyncrasy, but a fatal case of poisoning has never been described in rhino-laryngological practice.

Dr. AMRONSOHN (Ems) once applied a dose of 0.8 grammes of cocaine for an operation for a laryngeal polypus, without producing any baneful result.

Dr. MORITZ SCHMIDT (Frankfort) thought the toxic phenomena of cocaine administration were due to the bad quality of the drug as well as individual idiosyncrasy. Having observed intoxication from the use of cocaine in solution, he now always employs it in powder (one part of cocaine to five of sugar), in which form smaller quantities produce anaesthesia.

Dr. HEYMANN (Berlin) had seen many cases of cocaine intoxication and was of opinion that it was difficult to estimate the quantity of cocaine employed, one portion remaining in the instrument and some portion of it reaching the stomach.

Prof. SCHNITZLER (Vienna) remarked that cocaine in smaller quantities produces anesthesia when employed in spray form.

Dr. BRESGEN (Frankfort) had never seen intoxication from the use of Merck's cocaine.

Dr. JACOBY (Magdeburg) had frequently seen cases in which disagreeable sensations and vomiting followed the employment of cocaine.

Dr. KOLLMANN (Badenweiler) agreed with Schmidt that the powder was the best way to employ cocaine. Added to oily emulsion of menthol he had often remarked very satisfactory results in cases of dysphagia in phthisis.

Prof. JURASZ mentioned two objections to the use of cocaine, viz., hypersecretion in the pharynx, which made it difficult to obtain a laryngoscopic image, and considerable increase of reflex excitability in the pharyngeal muscles, which rendered the introduction of instruments into the larynx rather difficult.

A paper was read upon *Perforations of the Nasal Septum* by Dr. ROSENFELD (Stuttgart). Perforations occur sometimes for which it is impossible to find any originating cause in syphilis, tuberculosis, typhoid, rheumatism, traumatism, abscess, or perichondritis. The author reported an obscure case of this nature. A woman, forty years of age, complained of fetor from the nose. No ozæna was present. On the cartilaginous septum near the upper edge of the quadrangular cartilage, on the left side, a black point of the size of a pea was observed, which gradually increased in size. In three weeks a similar spot was observed on the opposite corresponding surface. Four weeks after its origin separation began, and after removing the dead tissue the author observed a small perforation. All known causes being in this case excluded, it is necessary to regard the condition as a gangrene of tropho-neurotic nature similar to what occurs in perforating ulcer of the foot and symmetrical gangrene.

Prof. KRAUSE (Berlin) maintained that tropho-neurotic influence being doubtful, some other cause, especially the possibility of traumatism, must be looked for.

Dr. JACOBY (Magdeburg) was of opinion that deep-seated suppuration had occurred; when such a process was active on both sides, a perforation is easily formed.

Prof. B. FRAENKEL (Berlin) maintained that all these perforations occur on one precise spot, i.e., the so-called point of Kieselbach, at which spot epistaxis commonly occurs. Anatomically this is the duct of the organ of Jacobson, and it is quite possible that on this spot with its plexus of vessels, vascular changes are the etiological cause of this form of septal perforation.

Dr. ROSENFELD, replying to Prof. Fraenkel, remarked that Kieselbach's point is not quite identical with the spot where such perforations occur. These are situated further up on the thinnest part of the septum.

A paper was read on a *New Method of Treating Laryngeal Phthisis* by Prof. SCHNITZLER, of Vienna.—The author had used balsam of Peru along with collodion. He orders at first inhalations of the balsam generally, adding astringents and resolvents, in order to cleanse the tubercular ulcer, and he afterwards brushes the surface of the ulcers with balsam of Peru and collodion. Deep sluggish ulcers are previously scraped, and polypoid growths are destroyed by the galvano-cautery. The author thinks that collodion not only controls the swelling and hypersecretion, but forms a protective cover for the ulcer, while the balsam of Peru possesses antiseptic and irritative qualities. So far he has obtained very satisfactory results, preferring this treatment to lactic acid.

Prof. KRAUSE (Berlin) maintained that lactic acid and curettement were the best methods of treating laryngeal phthisis.

Dr. SCHMIDT (Frankfort) agreed with Krause, protesting, however, against the abuse of lactic acid.

Dr. KEIMER (Dusseldorf) strongly recommended lactic acid.

A paper was read on *Experiments with Hot Air (Wiegert's Method) in Laryngeal Tuberculosis* by Dr. NYEAMP (Leiden).—He had arrived at the following conclusions:—(1) The air inhaled by Wiegert's apparatus is not so hot as it appears to be, because the temperature of the tube (copper) in which the thermometer is placed, increases the height of the thermometer reading. (2) Though the temperature of the air to be inhaled is many degrees higher than is necessary to destroy tubercle bacilli, this air when it reaches the mouth and pharynx is lowered in temperature many degrees, and when it reaches the larynx and bronchi is scarcely higher than the normal temperature of any body cavity. (3) The reason of this loss of temperature is the evaporation of quantities of water, extracted from the mucous membrane of the mouth and pharynx during the passage of the hot air.

As to results obtained from the application of Wiegert's method, they have been in the author's experience entirely negative. Neither the local process, nor the general condition is at all improved. The only advantage of the method is the exercise of the lungs, which can, however, be obtained in a much simpler and cheaper manner.

Dr. RIETH (San Remo) remarked that at the meeting at San Remo, Wiegert's method was condemned.

Dr. LAZARUS (Berlin) remarked that other observers (Mosso and Bondello) had come to the same result.

Prof. B. FRAENKEL (Berlin) remarked that it was *à priori* impossible by Wiegert's or any other method to expect air of 100° temperature to penetrate into the pulmonary tissue. At such a temperature albumen is coagulated.

Dr. ROSENFELD (Stuttgart) remarked that at the meeting held in Stuttgart in April, he had already expressed himself against Wiegert's method.

A paper was read on *Tracheotomy in Laryngeal Phthisis, with Anatomico-Pathological Demonstration* by Dr. A. BETZ (Maine).—Tracheotomy in laryngeal tuberculosis, as advocated by Moritz Schmidt, is now often performed; and laryngotomy, with scraping of the tubercular masses, resection, and total extirpation of the larynx in tuberculosis, are operations nearly unknown. B. Fraenkel, in 1885, proposed the extirpation of laryngeal growths, and this operation was performed, although accidentally (the diagnosis being epithelioma), in one case by Lloyd. The author related a case occurring in a female, of thirty-five, who, with comparatively healthy lungs, had perichondritis of the larynx. Tracheotomy was performed—local treatment was unsuccessful. Death occurred from excessive hæmorrhage from the superior laryngeal artery, leading to hypostatic pneumonia. At the necropsy, very slight changes were found in the lungs, but a very considerable degree of laryngeal disease. The specimen was demonstrated during the meeting. The author is of opinion that in such a case as this, where the general condition and pulmonary state were comparatively good, extirpation of the larynx would have some chance of success.

A paper was read, entitled, *When and with what Limitations is Local Treatment of Disorders of the Throat and Nose at Watering-places Indicated?* by Dr. HAUPT, of Bad-Soden.—The author arrived at the following results:—(1) When treatment is indicated it is preferable to perform it at home before the patient is sent to the Spa. (2) It is necessary for physicians at such health-resorts to have sufficient knowledge of rhino-laryngology to be able to make a satisfactory diagnosis and to carry out local treatment when requisite. (3) The physician should

avoid operations upon patients whose stay at such health-resorts is too short. (4) As it is better to carry out local treatment when the patient's general condition is most favourable, it is very desirable that patients who live far from the large centres where specialists are located should be sent to the health-resorts for a longer time, when general as well as local treatment can be most satisfactorily carried out.

Dr. GOLZ (Ems) was of opinion that the medical practitioner at the health-resort should communicate with and work in perfect accord with the specialist with regard to the treatment of the patient.

A paper was read on *The Results of the Treatment of Diseases of the Larynx, Pharynx, and Nose at the Sulphur Waters of Langenbrücken* by Dr. ZIEGEL-MAYER (Bad-Langenbrücken).—The author, discussing the different theories of the action of sulphur waters, maintained that chronic diseases of the nose and throat, especially when associated with scrofula, chlorosis, syphilis, and metallic poisoning, were much more amenable to local treatment when the general health was improved by a course of sulphur waters, such as those of Langenbrücken.

A paper was read on *Papilloma of the Upper Air-Passages* by Dr. THOST (Hamburg), the report of which is not yet to hand.

A paper was read by Dr. MORITZ SCHMIDT (Frankfort) on *Incisions into the Tonsil, and their Indications*.—The method employed by Dr. Hoffmann (Baden-Baden) consists in splitting the tonsillar lacunæ with a hook in an upward and downward direction, thus converting the lacunæ into long channels and destroying them. This removes the collections of micro-organisms and infective secretions and terminates the whole series of par- and hyper-aesthesias of the throat, which exist along with these conditions.

A paper was then read upon the same subject by Dr. HOFFMANN.—The principle of his treatment is the destruction of all the cavities of the tonsil. It is sometimes necessary to use scissors in order to remove folds of mucous membrane which remain after splitting the tonsil. These folds interfere with the act of swallowing. Sometimes a portion of the anterior palatine arch, which covers the tonsil, has to be resected so as to prevent the intermixture of food with the secretion. Afterwards iodised glycerine or ten per cent. carbolic acid can be applied.

Dr. ROSENFELD (Stuttgart) spoke favourably of the operation proposed. It is both slight and effective.

Prof. B. FRAENKEL (Berlin) remarked that he adopted this method with success in cases of chronic catarrhal tonsillitis.

A paper was read upon *Tuberculosis of the Nose and Mouth* by Dr. MICHELSON (Königsberg).—The author has observed during the last year, four cases of tuberculosis of the nose, and four cases of similar affection of the mouth, in one of which both nose and mouth were simultaneously affected. In four cases there was concomitant laryngeal tuberculosis. Besides describing the above case, the author exhibited drawings and microscopical preparations. Basing his observations upon these cases, he advises care in the diagnosis of primary tuberculosis of these organs, cases recorded in literature not being above criticism.

A paper was read on *The Significance of Obstructed Nasal Respiration, especially in Children* by Dr. MAX BRESGEN (Frankfort).—The author especially dealt with the loss of intellectual activity, caused by the influence of obstructed nasal respiration. In 1868, Rupprecht had already expressed the opinion that in cases of nasal obstruction prolonged intellectual effort is impossible. This observation was supported by Michel, in 1876; Seiler, in 1881; Hack, in 1882; and Elsberg, in 1883. The author had drawn attention to the same point on two

occasions (in 1884, and again in 1887). School teachers should pay attention to the condition of the nose in their pupils, since children apparently dull or lazy develop normal diligence and intellectual activity after radical cure of the nasal obstruction. Schaeffer, in 1885, and Ziem, in 1886, made similar observations. Guye, in 1887, occupying himself with this condition, applied to it the term, "Aprosexia." The author also referred to other symptoms resulting from nasal obstruction, viz., asthma, epilepsy, spasm of the glottis, etc.

Dr. OBERTUSCHEN (Krefeld) confirmed these statements from his own observations upon school-children.

Dr. SCHERPF (Kissingen), remarked that his own case was a proof of the correctness of Bresgen's ideas. As a child he suffered from "asthma bronchiale nervosum," and was unable to work satisfactorily at school. The examination of his nose revealed the presence of considerable hypertrophy of the inferior turbinated body and a hard osseous outgrowth from the septum. These growths were removed by Dr. B. Fraenkel with the chisel and hammer, after which the attacks of asthma ceased and the intellectual faculties increased in activity.

A paper was read on *The Treatment of Empyema of the Antrum of Highmore* by Prof. KRAUSE (Berlin).—The author mentioned his method of dry treatment of empyema of the antrum by means of iodoform or iodol, also demonstrating the instrument employed by him. This method has been minutely described in a paper published by his assistant, Dr. Friedlander, in the *Berlin Klin. Woch.*, No. 37, and is as follows:—After evacuating the pus from the antrum by means of his (Krause's) trocar, through the inferior nasal meatus, the antrum is cleansed by irrigations of warm water and subsequently dried by injecting air. Iodoform or iodol is then insufflated into the antrum through the cannula by means of Kabarsche's Pulveriser. Some cases have been cured in this method within two weeks, and up to the present time (five months after) no relapse has occurred.

Dr. BRESGEN (Frankfort) agrees with Krause, and is of opinion that swellings of the nasal mucous membrane should previously be destroyed so as to free the natural opening of the sinus and allow the pus to evacuate.

A paper was read on *The Treatment of Goitre with Iodine* by Dr. HEYMANN (Berlin).—The case of a woman was cited in whom the goitre had diminished to one-third of its former size after injections of iodine, practised twice a week for four months. After the last injection there was great pain, vomiting, loss of consciousness, contractions, and gradually increasing loss of sensibility and movement in the upper extremities, and death followed two days after with signs of cardiac paralysis. No autopsy was obtained.

The author was of opinion that thrombosis had occurred from penetration of the iodine into a large vein, the clot extending to the external and intracranial branches of the internal jugular vein. Heymann had collected sixteen recorded cases of death after parenchymatous injections. The same result may follow from injection of other drugs, e.g., perchloride of iron and ergotin, etc. Iodine injections are by no means to be discredited by these cases, and are the most serviceable.

Dr. HELLER (Nuremberg) had made a great number of iodine injections but had never seen a fatal result. Injection into a vein can be avoided by pushing the growth towards the surface between the fingers. Small quantities of iodine should be used at first, as the idiosyncrasy of the organism is not known.

Dr. KILLIAN (Freiburg) recommends the operative removal of goitre.

Dr. KURZ (Florence) reported one case cured by injections of ergotin.

Dr. VOISEN (Frankfort) was of opinion that by different remedies we may arrive at the same result. He related one case in which by accident permanganate

of potash was injected (1·0—50·0 three quarters of a Pravaz syringeful). The result being very favourable, the author repeated the injections in weaker solutions and the result was equal to that claimed for iodine injections.

Dr. HEYMANN (Berlin) remarked that he had never seen good results from ergotin. He reported a case similar to Vohsen's where he accidentally injected into the goitre a concentrated solution of chromic acid. Although there was great reaction, the result was satisfactory.

A paper was read on *Operations for Nasal Polypus* by Dr. GOLDSCHMIDT (of Reichenhall).—The author directs attention to the injuries to the nasal cartilages and bones during operations for polypus with the cold snare. Though generally harmless they may cause great bleeding. The cold snare, though the best instrument for the removal of nasal polypus, is not the ideal cutting instrument. In cases of hard growths with broad bases we are obliged to draw out the growth by traction, cutting being impossible. Possibly in future we shall be able to find such a material as will possess suitable force besides flexibility.

Prof. FRAENKEL (Berlin), remarked that the employment of the cold snare as a cutting or traction instrument will depend upon certain indications, such as, whether or not the polypus possesses a broad base. We have now another instrument in the cutting forceps, operation with which must, however, be conducted under a good light.

PROF. FRAENKEL (Berlin) presented a series of *Microscopical Drawings of Sections through the Ventricular Bands and Vocal Cords* in order to show the distribution of the glands.

A paper was read on *The Distribution of the Glands on the Vocal Cords*, by Dr. HEYMANN (of Berlin).—The glands of the ventricular bands commence over the arytenoid cartilages, forming a wide-spreading group, penetrating deeply. The openings of their ducts are visible on the superior and inferior surfaces of the free edge of the ventricular bands. The whole posterior region of the ventricular bands is full of glands. On the upper surface they generally (from the centre) diminish in number, becoming smaller and more superficial. The glands of the inferior surface also (from the centre to the anterior third) become smaller and more superficial. Between both layers of the glands there is thus a space entirely free, commencing at the centre and widening out towards the anterior region. This is composed of soft connective tissue, containing elastic fibres, and muscular fibres. On the lateral wall of the ventricle is situated a whole series of glands. On the upper surface of the vocal cords, away from the portions covered with flat and transitory epithelium, the series of glands exists described by Coyne and B. Fraenkel. They begin at the posterior part, near the processus vocales. Approaching the anterior region, they gradually diminish. On the under-surface of the vocal cord a group of glands exists, of which the ducts lead obliquely upwards towards the free edge of the vocal cords.

Prof. KRAUSE (Berlin) was of opinion that the upper glands are situated in the sinus Morgagni, since the thyro-arytenoid muscle cannot be the definition of its limits. According to Luschka and Jacobson, the fibres of this muscle are themselves contained in the ventricular band, since the sinus Morgagni is itself horizontal.

A paper was read on *The Central and Peripheral Innervation of the Larynx* by Prof. KRAUSE, of Berlin.—Francois Frank in a paper read at the Biological Society of Paris, expressed his doubts as to the existence of a cortical centre for the larynx, as described by Krause in 1883, and by Lannois and Delavan.

Krause, therefore, resolved to repeat his former experiments. The result was

the same, viz., proving the relation of the gyrus prefrontalis to the movements of the larynx, palate, vault of the pharynx, and base of the tongue.

In 1868, the author published in Pflüger's Archiv, his experiments upon the influence of the vagus nerve upon the respiratory movements. He has repeated these experiments, with the object of determining whether centripetal irritation of the recurrent nerve affects the muscular movements of the opposite vocal cord. Two rabbits, three cats, and four dogs were employed for experiment, and it was found that with weak and moderate stimulation, the vocal cord corresponding to the unirritated recurrent nerve was approximated to the middle line.

The influence of centripetal conduction shows clearer light upon the hitherto unexplained bilateral central position of the vocal cords, in cases of unilateral compression of one recurrent nerve. These experiments further confirm the view that in cases of permanent median position of the vocal cords we have not to do with paresis of the muscle, but with results due to central or peripheral irritation of the expiratory apparatus.

A paper was read on *A Tumour (Cylindroma Osseoides) of the Nasal Cavity, with Demonstration of the Patient*, by Dr. K. VOHSEN (of Frankfort).—The patient, a boy aged seventeen, presented, ten years ago, a growth at the inner angle of the orbit. Two years ago, obstruction of the left, and then of the right, nostril occurred. In March, the author found a growth extending from the left nasal bone to beyond the inferior edge of the orbit externally, and downwards to the canine fossa. Exophthalmos was present. In the left nostril, the growth was seen to be red, and completely compressing the septum to the right outer nasal wall. In the naso-pharyngeal cavity a large polypus was observed. The consistence of the growth was that of bone. The diagnosis made was osteoma of the ethmoid bone, with polypus. An operation was performed by Dr. Narbordt. The knife was plunged through the thin osseous plate, below the left inferior angle of the eye, into the cyst, and about twenty cubic centimètres of serous fluid escaped. The grey mass seen in the cavity was scraped. Extraction of the growth through the external nasal apertures being impossible, the nasal cavity was opened, and the growth destroyed, partly by the galvano-cautery snare, and partly by the finger. Considerable hæmorrhage ensued from the sphenoidal and maxillary sinuses, which was controlled by tampons. The cavity closed up a little, some months after the operation, the general condition remaining excellent. The growth, a cylindroma (? osteoides), was examined by Prof. Wiegert. The opening left in the naso-pharyngeal cavity allowed the observer to determine the functions of the velum palati on phonation (this was demonstrated during the meeting). As to further treatment, the author was of opinion that an artificial covering for the enormous cavity left was preferable to a plastic operation.

Dr. FLOTTMANN (Ems) in such a case would prefer a plastic operation, the skin to be taken from the forehead.

A paper was read on *Tuberculosis of the Nasal Mucous Membrane*, by Dr. SEIFERT (of Würzburg).—The condition is rare. Mertens, at the author's suggestion, searched medical literature, with the result of finding only thirty-one cases. In seven of these the disease appeared to be primary. The affection appears in three forms: ulceration, growths, or ulceration with growths. As to the differential diagnosis between syphilitic and tubercular ulcers, the author agrees with Michelson that tubercular ulcers are round or irregular in shape, while syphilitic ulcers appear as oblong furrows. Lactic acid is the best application. Mercuric-sozoidol gives also good results, while balsam of Peru is valueless. As to the second form of nasal tuberculosis, the author does not agree with Hajek,

who maintains that growths are present only at the commencement of the disease. In Mertens' statistics there were ten such cases. These growths have no characteristic appearance, and it is therefore necessary to make histologico-bacterial examinations. Mertens collected eleven cases of the third group. In the thirty-eight cases recorded of nasal tuberculosis, affection of other organs was found in nineteen. As to the relation of lupus to tuberculosis of the nose, the author is of opinion that many cases reported as tuberculosis are really lupoid.

Dr. MICHELSON (Königsberg) remarked that in twenty per cent. of these cases the ulcers assume the characteristic form described by Siefert. He maintains also that in more than fifty per cent. of cases of syphilis of the nose the mouth is also affected, while in tuberculosis this very seldom occurs. As to lupus, he thinks that in all cases, where histological and bacteriological examination is indecisive, we should be inclined to give the preference to a diagnosis of tuberculosis. The course of the disorder, and the small number of tubercle bacilli found would argue in favour of lupus.

Dr. GOTTSSTEIN (Breslau) remarked that tuberculosis never affects the osseous part of the nasal septum, and perforations of this region are therefore always syphilitic.

Prof. B. FRAENKEL (Berlin) remarked that giant cells and tubercle bacilli were found in lupoid nodules; and while there was no apparent difference between the bacilli of tubercle and lupus, the clinical course was, however, very different.

Prof. KRAUSE (Berlin) agreed with Fraenkel. In lupus we have, besides ulcers and cicatrices, characteristic nodules.

Dr. JURASZ (Heidelberg) remarked that there were cases in which the diagnosis between lupus and tuberculosis of the nose was very difficult, even when the skin is simultaneously affected. He related a case in point.

Dr. MICHELSON (Königsberg) remarked that the formation of nodules at the commencement of lupus in the nose has not yet been proved. The main reliance is therefore to be placed upon the course of the disease.

The following paper, entitled, *Contribution to the Diagnosis of Projections of the Mucous Membrane on the Posterior Free Edge of the Nasal Septum*, was read by Dr. REUTER (Ems). The author reported three cases. In one of them oval swellings were seen on the posterior part of the nasal septum (on both sides). That on the right was larger, and covered about two-thirds of the choana. The surfaces of these growths were rather uneven, and of pale-red colour. On touching with a probe, the right projection of mucous membrane proved to be unsensitive; the left one, on the contrary, was sensitive to a considerable degree. Nasal respiration was entirely free; there was only disagreeable secretion from the nose, which quite disappeared after the destruction of these swellings by means of the galvanocautery. In the second case there was only unilateral projection. In the third, it existed on both sides of the posterior part of the septum, the right one being the origin of considerable bleeding. In literature there are few remarks as to this affection of the septum of the nose. Zuckerkandl gives them the name of polypus, Semeleder (1860) of growths (Wücheringen), while Voltolini believes them to be normal projections of mucous membrane.

Dr. DIEDERICH (Elberfeld) had often seen similar swellings.

Dr. M. SCHMIDT (Frankfort-on-Maine) mentioned that he had seen them, but never of such size as Reuter reports.

Dr. REUTER (Ems) added that he would only direct attention to the asymmetrical pathological condition of the mucous membrane of the nasal septum.

A paper on, *A Simple and Generally Applicable Method of Examination of the Posterior Wall of the Larynx and Trachea*, was read by Dr. KULLIAN (of Freiburg).

The author's method consists, in strongly inclining the head forwards, so that the chin of the patient touches the manubrium sterni. The patient must stand, and the physician sit down or kneel, illuminating the oral cavity with the ordinary reflector. The mirror must be as large as possible, and kept more forward than generally, the velum being strongly pressed upwards. In cases of backwardly inclined epiglottis, it can be lifted upwards by a probe (after anaesthesia). As to the author's results: Of eighty-nine cases, in seventy-seven he was able to see entirely the posterior wall of the larynx; in eight cases only, partially; in four, little or nothing. The ordinary difficulties are changes in the neck, hindering the lowering of the head, such as goitre. The author recommends his method, especially for cases of tuberculosis of the larynx, where the posterior wall is so often affected. Of twenty-two cases examined, in six only was it free; while in the remaining sixteen there was affection of the posterior wall. The author was often able, by means of this method, to find affection of this region (ulcers, growths), where, with the usual method of examination, nothing was seen. By this method it is also possible to perform certain operations, e.g., scraping tubercular ulcers situated on the posterior part of the larynx. The author has also made experiments with this method, with the object of determining how much of the trachea was to be seen. He was able in many cases to see it up to the bifurcation.

A paper upon *The Treatment of Pharyngitis Phlegmonosa* was read by Dr. HELBIG (of Nuremberg). After having briefly reported different methods employed in cases of pharyngitis phlegmonosa, the author presents the results of his treatment of ten such cases by oleum crotonis. This drug he applies in quantities of three to four drops, brushing (by means of cotton wads) the skin below the angulus mandibulae up towards the larynx. He generally performs this operation himself. The principle of the treatment consists in producing external irritation, in order to relieve the inflammation of the mucous membrane. This action is very quick. The pains, dysphagia, and the infiltration of the pharyngeal tissue diminish and quickly disappear, so that the patient is generally well again on the next day, while the disorder usually lasts five to twelve days. The one drawback to this method is the production of eczema, which is sometimes rather disagreeable. The author has not observed any complications. Of ten cases the author reports two which are interesting, as they prove that oleum crotonis has perhaps some influence upon the disappearance of the usual relapses. The proper time for application of this drug is at the commencement of the disorder, suppuration being in this manner prevented.

Dr. SCHMIDT (Frankfort-on-Maine) was of opinion that splitting of the tonsils may be also a good prophylactic treatment. He advises further experiments.

Dr. SEIFERT (Würzburg), as prophylaxis against pharyngitis phlegmonosa, recommends frequent cleansing of the lacunae of the tonsils with tincture of iodine.

Dr. MICHELSON (Königsberg) agrees with Seifert. He successfully applied in one case intra-tonsillar injections of tincture of iodine (1 to 1½ per cent.).

Dr. SCHMIDT (of Frankfort) demonstrated *An Improved Barth's Palate Hook*, and made remarks upon its application.—After having demonstrated some similar instruments, namely, Krause's, and White's (described by Cresswell Baber), the author showed the improved Barth's palate hook. This latter consists of a smooth horizontal part, and possesses two small pillows upon the ends of the vertical portions for the fossae caninae. Patients bear this hook very well for ten to twenty minutes after thorough anaesthesia. Operations in the naso-pharyngeal cavity are easily performed by means of this instrument, and which can be obtained from Steiner, Allerheiligenstrasse 58, Frankfort-on-Maine.

Prof. JURASZ (Heidelberg) asked if this instrument could be used for children.

Dr. SCHMIDT replied, that in one case he successfully used it.

Prof. KRAUSE (Berlin) mentioned that he had seen a man, aged fifty-four, in whose mouth the palate hook could remain one hour and a half without trouble.

Dr. KELLER (Nuremberg) drew attention to the old method of Tuerck.

Prof. JURASZ remarked that it is rather dangerous, the uvula easily becoming cedematous.

A paper on *Illumination of the Larynx* was read by Dr. GOTSTEIN (of Breslau).

The author applies the electric lamp to two points of the neck, namely, between the hyoid bone and thyroid cartilage, and on the ligamentum conoideum. As to the diagnostic value of Voltolini's method, the author is of opinion that it is rather useless. It is indeed impossible by means of this method to distinguish the healthy parts of the larynx from parts affected with disease, e.g., ulcerations. Even in those cases, where very considerable infiltrations are present, they are obscured with this method. It is impossible to distinguish if these infiltrations are of tubercular, carcinomatous, or simply cedematous, character. It is also impossible to say, if we (in cases of small growths) have to do with benign or malignant tumours.

Dr. SEIFERT (Würzburg) is of opinion that we cannot condemn this method until it is further experimented with.

Prof. KRAUSE (Berlin) says, that in cases of empyema antri Highmori illumination may serve for diagnosis.

A paper, entitled *Caries of the Nose*, was read by Dr. KAHSNITZ (of Karlsruhe).—The author is of opinion, that caries of the nose is a comparatively common disease. He therefore uses the probe in all cases, whether there are or not subjective as well as objective symptoms. The author, from his experience, pre-supposes caries from certain subjective symptoms: for instance, nervous headache, lasting for a long time, and always greatly increasing during intellectual work, etc., difficulty in reading ("the letters disappear," in the words of the patients), etc. The author even from subjective symptoms judges of the situation of the process in the nose. Caries sinus frontalis, for instance, is characterised by pain in the forehead, and feeling of compression at the superior edge of the orbit. In cases of caries hiatus semilunaris and sinus maxillaris, there is no pain, only a sensation of traction in the direction of the arcus zygomaticus, etc. Pus, complicating caries of the nose, occurs generally in the sinus maxillaris (of ten cases of empyema antri Highmori, in three of them was dental caries; in seven, however caries of the hiatus semilunaris and ethmoidal cells). Of three cases of empyema sinus frontalis, caries existed in two. Of five cases of empyema sinus sphenoidalis, caries was present in three. Empyema of the ethmoidal cells is very rare, in one case only of thirty cases of caries. Of a total number of forty cases of caries nasi the ear was affected in ten; in three of them empyema bursae pharyngeae was present. The result of treatment in the author's cases was very favourable: of forty cases, thirteen were cured; in sixteen he obtained amendment. Of these cases the author reported only two of the more interesting. The author demonstrated the special probe, invented by him, as well as different instruments employed by him for the treatment of this disease.

S. CZAFSKI (of Jena) demonstrated the magnifying laryngoscope.

Prof. JURASZ (of Heidelberg) demonstrated some very interesting cases.

Jan Sedziak.

Eighteenth Congress of the German Surgical Society.

April 24—27, 1887.

V. ESMARCH (Kiel) on *The Etiology and Diagnosis of Malignant Tumours, especially of those of the Lip and Tongue*.—In all parts of the body, especially on the lips and tongue, there often arise ulcerating tumours, similar to cancers, but not cancers in reality. It is therefore necessary to make a certain diagnosis before operation, especially by microscopical examination of excised pieces. Syphilitic or tubercular tumours and actino-mycotic tumours may be taken for cancer. Etiological causes may be found in irritations by foreign bodies, tobacco, paraffin, etc., and also arise in the presence of cicatricial tissue, in chronic benign ulcerations from irritation, and in metamorphosis of benign neoplasms. Lastly, predisposition must always be considered. Syphilis may produce inclination to malignant growth. Heredity cannot be regarded as certainly proved.

KRAUSE (Halle) showed three patients operated upon for cancer of the tongue, and without recurrence for four years.

EUGEN HAHN (Berlin) showed a patient operated upon nine years ago for cancer of the larynx. The operation consisted in extirpation of the larynx, the hyoid bone, and the epiglottis. The patient has a recurrence dating from some months back.

SCHIEDE (Hamburg) has observed twenty-seven cases of lingual cancer; six of them could not be operated upon. Of twenty-one operated cases, twelve have been cured, four died from recurrence, one from pneumonia without recurrence. Seven have been cured, one of them for nine years.

ESMARCH showed a patient cured after extirpation of the whole tongue and epiglottis, the cure having lasted twenty years.

KUSTER (Berlin) has operated upon twenty-six cases of lingual cancer. Two have died from the operation. Of the others, four remained without recurrence during four years, and one for ten years.

BERGMANN (Berlin) showed two cases of cancer of the tongue operated upon three years previously, and without recurrence.

MOSLER (Greisswald). On *Myxœdema*. The author related the case of a patient, fifty-six years old, in whom the disorder commenced by catching a cold. Swelling of the hands and arms followed, and progressing to the lower extremities and the face. The pharynx and nose were also affected by the disease, so that speech became difficult. The climateric occurring now, the disease became more marked, and was also complicated by nervous symptoms. The process consisted in a deposition of mucinous fluid in the tissues, and the skin feeling them like gelatine. Palpation of the thyroid gland was not possible at all, therefore it could not be determined if there was anything unusual in this organ.

HORSLEY (London), showed a specimen of chronic disease of the thyroid gland (cirrhosis) occurring in a myxœdematous patient, dead from intercurrent disease.

HOFFE (Wurzburg) related a case of cachexia strumipriva after total extirpation of the thyroid gland. In another case of extirpation, the myxœdema disappeared as the goitre recurred.

REHN (Frankfort-on-Maine) believes that a relation exists between myxœdema tetany and acromegaly.

SCHUCHARDT (Stettin). On *Ozœna*. The author has found that in all cases of ozœna the cylinder-epithelium of the mucous membrane is transformed into plaster-epithelium. The bad odour is declared by him to be analogous to other diseases in which dissolution of the epidermoid epithelium is present, as in chronic

metritis, and normally in the prepuce, and in intertrigo. The author believes the special character of the disease consists in cicatricial atrophy of the nasal mucous membrane, produced by chronic catarrhal inflammation and consecutive keratoid epithelial metamorphosis.

RYDYGIER (Cracow). *On Rhinoscleroma.* Demonstration of two cases of this disease, which is very rare in Germany. The treatment must consist of very early extirpation of the affected parts.

ANGERER (München) showed the macerated head of a patient with lateral nasal fissure. There was also a great defect in the front bone. The author has found recorded only four such cases.

TRENDELENBURG (Bonn). *On Operations for Deflected Noses.* The author removes with a chisel the malformed bone, and then applies the apparatus of Adams to keep the nose in the fresh position.

ROTTER (München). *Plastic Operations on the Mouth and Nose.* The author showed a case of plastic restitution of the palate by implantation of skin. He also showed a case of total rhinoplasty.

RUDOLF WOLF (Hamburg). *Accessory Thyroid Gland in the Tongue.* A girl, twenty years old, has had always difficulty in swallowing, which has increased during the last year. The laryngoscope showed a tumour on the left side of the lower part of the tongue. The tumour commenced at the circumvallate papillæ, and was very dense. Under applications of iodine it decreased somewhat, but a short time later became larger again. Prophylactic tracheotomy was done, extirpation performed, the patient being fed by a Nélaton catheter. A cure resulted. The tumour consisted of thyroid tissue.

HANS SCHMID (Stettin). *Total Extirpation of the Larynx two and a half years previously. Loud voice without Artificial Larynx.* Demonstration of the case already published in *Langenbeck's Archiv*.

Michael.

NOTES.

THE BRITISH LARYNGOLOGICAL ASSOCIATION will meet at the Langham Hotel on November 15th.

We are compelled, owing to want of space, to hold over till the next number Professor Guye's interesting paper on "Aprosexia."

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INAUGURAL ADDRESS.

Delivered at the First Meeting of the Second Session of the British
Laryngological and Rhinological Association, November, 1889,

By PHILIP SMYLY, M.D., of Dublin,

President of the Association.

GENTLEMEN,—

My first duty on taking the chair to-day is to thank you for coming here—many of you from distant parts of the country, and at considerable inconvenience.

My second is to thank you for having placed me in this post of honour.

It is very encouraging to find that Irishmen are not forgotten, even when they remain in the old country. In every department of the State, and in all the professions, you have Irishmen who have done well for themselves and their country. It is a rare honour for an Irishman to be elected president of a London society. This year a similar honour has been conferred by another Society on a Dublin man—my friend, Dr. Macan, President of the Gynæcological Society.

There are strong bonds that bind men together—but there are forces that separate.

One of our most distinguished Viceroy, in an after dinner speech in Dublin, said, some few years ago—"There are laws that bind England and Ireland together, which no parliament can repeal or alter—the laws of nature."

These laws have not yet been codified, nor are they to be found in any blue book.

In the case of our Association, our bond of union must be our common interest in the search after truth. We must ever bear in mind that truth is "many sided." Truth is not a machine to be constructed—to be set going at will—to be measured, and to be directed in the way she should go. No; she is a beauty, who must be loved and worshipped.

Our Association was brought into existence last year with the object of bringing all the specialists of the United Kingdom together. Sir

Morell Mackenzie, in his address last year, said—"A few years ago such a society would have been impossible, not from lack of objects of scientific activity, but from want of men." Now laryngology is in such a flourishing condition, that we can survive an exodus from our Association, and still exist.

The efforts made to bring back those who left the Association, I regret to say, have not been successful.

Your Association, however, has a good backbone, and is still enlarging its list of members in quite sufficient numbers to assure us of future success.

My predecessor, in his eloquent address last year, said—"The Society, whose formal entrance on life we are met here to-night to celebrate, is, I feel, destined to play a most important part in the furtherance of our knowledge of diseases of the upper air-passages, and our ability to prevent and cure them."

To-day we meet to celebrate the completion of a year of real good work done, and to begin a new year in good hope—and "great expectations."

Though the Association is intended for the advance of laryngology, we are not all specialists, and we welcome into our ranks all who use the laryngoscope in their daily practice—as they use their stethoscope, and their thermometer.

The position of laryngology in the medical world is in some degrees granted, but not fully, as yet. The time is not far off. Every year shows that laryngology is taking its place, not only as a speciality, but also as an integral part of the profession.

I am sure that laryngology will soon form an essential part of the medical student's education, and will be required as a branch of medicine and surgery, as other special subjects are at the final examinations, for admission to our profession.

A very important step has been taken in this direction by our American cousins. A few weeks ago I received a synopsis of a course of clinical lectures on diseases of the throat and nose, to be delivered in the theatre of the Vanderbilt Clinic, College of Physicians and Surgeons, New York, by Professor Leferts, during the session of 1889-90.

Sir Morell Mackenzie last year gave you hope of work to be done. I have the pleasing task of congratulating on the work that has been done. The papers were interesting, and the discussions were full of good sense, and conducted with good temper.

The first paper was on the "Treatment of nervous affections of the Throat." This paper was chiefly occupied by the use of galvanism, and the comparative advantages of the different currents for aphonia. With regard to this subject, we may repeat the words of the *Famulus* in *Faust*, "I already know much, but I would fain know all"; but unlike him we know that we do not know, much that we want to know.

The advances in electrical knowledge is so rapidly on the increase, that the news of last month is almost ancient history this month.

The discussion on this paper was very full and satisfactory. One expression I find fault with—an expression used by several of the speakers, so I presume it conveyed some meaning to them—"The moral effect of

the galvanic current." I can understand the moral effects of a good blackthorn stick in an Irish fair, if the man who carries it looks like using it, if needs be, or of a six-shooter in the Western States. I do not believe in any moral effect in electricity. It is a useful stimulant, and certainly prevents muscular wasting when carefully used.

"Anosmia" was very well treated by Dr. Dundas Grant. He alluded to the action of cocaine improving the sense of smell when prudently used in the treatment of anosmia. This observation has been confirmed by subsequent observations.

Dr. Hunter Mackenzie read a paper on a branch of a very large subject, namely, "On the influence of certain medical agents on the Bacillus of Tubercle in Man." He purposely reserved for future discussion the indications for surgical treatment in laryngeal phthisis. In the course of the discussion several members spoke very hopefully of local treatment in cases of phthisis laryngea, especially with regard to the use of lactic acid and menthol.

Whether it be finally settled that the tubercle bacillus is the cause of the disease, or that the diseased structure provides a suitable habitation for the bacillus, there is no doubt that we have means of contending with this fearful disease, in its early stages, which we knew nothing of a very few years ago.

Dr. Norris Wolfenden's paper on "Cancer of the Thyroid Gland," "A case of Nasal Calculus," by Dr. F. M. Hunt, and a paper on the "Physics of certain Nose and Throat diseases" brought the meeting of November 14th to an end.

"The relative merits of early and late Tracheotomy in chronic diseases of the Larynx," was the title of a paper read by Mr. L. Browne. He gives some useful rules for guidance in selecting cases for operation.

My belief in this connection is that each case must be decided on its own merits, and that even in the last stages of phthisis laryngea many days of torture may be saved by an operation which itself gives very little pain or shock.

These operations should be done with Sir James Paget's dictum well in mind. A surgeon should never be actively useless, and need not regard the unkind comments of the medical brother alluded to in the paper, whose

"Praise dispraises, whose dispraises praise!"

(*Giles Fletcher.*)

The next paper was by Dr. Charles Warden, of Birmingham, on "Parosphresia and Parageusia."

Mr. Stoker gave a very useful paper on "Anæsthetics in operating on the Throat and Nose." I may mention in passing, that the late Sir Philip Crampton operated in the Meath Hospital many years ago, placing the patient in very much the same position so well described by Mr. Stoker in his paper. The position (namely, a wedge-shaped cushion under the shoulders, so as to let the top of the head rest on the table) is not a very convenient one. The reason assigned for its adoption is that blood may get into the larynx during deep anæsthesia; the fact that this does not occur was pointed out by the late Maurice H. Collis, of the Meath

Hospital, and has since been verified by every surgeon who operates on cleft palates.

This meeting was brought to a close by a paper on some new remedies in diseases of the throat.

June 26th. Mr. Mark Hovell and Dr. Wright Wilson introduced the subject of diseases of the glandular structures of the pharynx and nasopharynx. This is a most interesting subject, and our means of diagnosis, and our knowledge of what to do when our diagnosis is made, are increasing every year. Some idea of the importance of this subject may be formed by the statement of a recent writer: "In the post-nasal region the cure of adenoid vegetations has resulted in the prevention of deafness to such an extent that there are, probably, at least 100,000 persons now hearing well who, had it not been for Dr. Meyer's valuable discovery, twenty years ago, would be hopelessly deaf. I hope we may have another such paper this session from these gentlemen.

The President gave a most interesting paper on "Gouty Sore Throat." True gout in the throat is an extremely rare condition, as Sir Morell Mackenzie points out, but there is a gouty condition of the throat as well as of other parts of a gouty subject, to which Sir James Paget gives the name, in his lectures, "incomplete gout." This condition is more frequently found.

Prof. Collier brought the session to a close with an interesting account of the hyo-epiglottic membrane.

This is a very brief note of the work done by your Association. Let us strive to do more this session. It is not necessary to strive after novelty—though novelty is not to be despised—nor yet to fear bringing forward a subject of interest because others may have already spoken or written on the same subject. It is very useful to go over old ground, and, even in a well-reaped field, good grain may be gathered by careful gleanings.

There are several subjects I should like to hear discussed by this Association—for, example, the use and abuse of the galvano-caustic. It is now so much used, not only in the throat, but in the nose and ear. The subject has an added interest in the connection of other diseases with these organs. For example, the connection of various otherwise incurable neuralgias with disease in the nose, which have been cured by the galvano-cautery: also the connection of the nose with the thyroid body in Graves' disease, as pointed out from different points of view by Mr. Stoker and by Dr. Felix Semon.

The opinion of the members as to how much may be done with safety, how little is effective, would be of great value. The directions in some of the books seem to me to be rather violent. I am sure better results may be obtained by gentle means, and thus avoid what are called unfortunate cases, such as the case reported by Werner (in the *JOURNAL OF LARYNGOLOGY AND RHINOLOGY*, Vol. II., p. 431), in which "the patient was only saved by making compression of the carotid for ten days," bleeding having come on five days after the treatment of an hypertrophied tonsil.

In this, as in other departments of surgery, there is a temptation to heroic treatment. "If I do not do it, someone else will," as Sir William Fraser, Bart., reports a saying of the Duke of Wellington. He who in war fails

to do what he undertakes, may always plead the accidents which invariably attend military affairs, but he who declared a thing to be impossible, which is subsequently accomplished, registers his own incapacity.

On the other hand, we should remember that "by trying to do better " we often mar what's well."

Among other subjects for discussion, I would mention the condition of the throat in such diseases as diabetes, and in albuminuria, following in much the line of Sir Morell Mackenzie's paper on gout. And also the influence other organs have on the throat, not directly or obviously connected with it in some such way as we know the condition of the liver has on the blood-vessels of the nose as well as on the hæmorrhoidal veins.

In the nomenclature I would deprecate the use of Greek names, and particularly the combination of Greek and Latin names. I must confess my admiration for the way the Germans call a spade a spade.

To give an example of the importance of going over the ground already passed over, I would in a few words call your attention to the action of the epiglottis.

The epiglottis stands between the tongue and the larynx. The larynx is open ; during the act of swallowing the larynx must be closed. Therefore, the epiglottis is a lid. It closes over the larynx, and the subject is finished.

In this case I may quote the words of the Duke of Argyle on another subject :—"Which is a curious example how preconceived theories " founded on false analogies will vitiate our observation of the commonest " facts in nature."

No laryngologist believes this, though we go on saying it, much in the same way as we say the sun rises and sets, Americans speak through their noses, or that, when a small boy turns his heels up in the air, he has turned head over heels.

These expressions we use every day, and no one complains, because we all know what is meant.

When, however, a scientific book quite recently published, says at page 63, that "the special office of the epiglottis is to close tightly over " the larynx during the passage of food into the pharynx," it is time to object. Also Quain's Anatomy says : "But during the act of swallowing " it is carried downwards and backwards over the entrance into the larynx, " which it covers and protects." Gray's Anatomy says : "But during " deglutition it is carried downwards and backwards so as to completely " close the opening into the larynx." In Fraenkel's Article in Ziemssen's Encyclopædia : "The upper side of the epiglottis never touches the " posterior wall of the pharynx when it is laid backwards, a position which " it assumes during each act of deglutition."

Doctor Howard also speaks of "raising the epiglottis"—and Doctor Dwyer, of New York, of "hooking forward the epiglottis with his left fore-finger" when describing the operation of intubation.

I make these quotations merely to show that though the sense is gone the words are still used and may mislead.

So long ago as Magendie's time the lid action of the epiglottis was doubted.

Both Lewin, of Berlin, and Semeleder, of Vienna, pointed out and demonstrated with the laryngoscope that the epiglottis may be completely destroyed, and its total absence not be even suspected by the patient.

Prof. Hyrtl, of Vienna, says in his "Handbuch Topograph Anatomie," p. 87 :—"The epiglottis does not close the opening into the larynx during the act of swallowing, as is falsely believed—and serves in no way for that purpose—of sliding over the cavity like a drawbridge." He also mentions several cases in which the absence of the epiglottis was only discovered after death. He also says—"Let us pass the finger far enough back, we come not on the anterior but on the posterior surface of the epiglottis."

There are many other reasons which prove the truth of these statements, which Prof. Hyrtl published so many years ago—in the year 1857—with which I need not trouble you.

The action of swallowing may be described thus :—The glottis is raised towards the base of the tongue, the arytenoids are drawn together, the epiglottis is drawn into the fossa prepared for it in the base of the tongue, at the same time projecting the laryngeal end towards the arytenoids. The meeting of these three bodies closes the cavity of the larynx, and the closed larynx looks exactly like a very large leech-bite. The morsel of food passes over the base of the tongue and the laryngeal aspect of the epiglottis, and the rounded smooth surfaces of the two arytenoids into the œsophagus.

In conclusion, I would once more take up the words of my predecessor in this chair, and say to the members of this Association, "whilst devoting yourselves to this speciality, continue to practise general medicine and surgery."

I would further say to the profession in general, adopt the laryngoscope in your general practice, and use it as you now do your stethoscope and thermometer.

Last of all, remember that medicine—large and noble as it is—is only after all, a branch of natural science, and should be approached in a philosophic spirit.

Study Nature with an earnest and loyal spirit, and she will give you an ample reward. In the words of an American poet—

"For this is Nature's largess—color, tone,

"Splendor of land and sea—

"All that she once reveals becomes thine own,

"For days that are to be."

(*Francis L. Marr, Harpur, August, 1889.*)

ON SOME RELATIONS BETWEEN THE DISEASES OF THE NOSE AND THE EYE.

By ADOLF BRONNER, M.D.,

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IN late years attention has frequently been drawn to the intimate relation between the diseases of the nose, and the diseases of the middle ear and throat ; but we hear very little of the connection between the diseases of the nose and those of the eye.

The fact is, that the nose and eye are situated so very near together, that they are in direct connection with one another through the nasal duct, that the venous supply is in direct communication through the frontal veins, the lachrymal plexus, the ethmoidal veins, and others, and that there is a very intimate reflex vasomotor connection. These facts are proof enough that there must be a very intimate relation between the two organs. If we carefully go into the history of many cases of disease of the eye, we do in reality find that they are in close connection with some affection of the nose.

In most cases of rhinitis, we find that the inflammation has spread up the nasal duct, thus causing the mucous membrane of the duct to swell, and preventing the free passage of tears into the nose ; or, the inflammation has spread into the lachrymal sac, given rise to mucocele, and this causes and keeps up inflammation of the conjunctiva and cornea.

We all of us know how very difficult it is to cure some cases of epiphora, and how the affection returns again and again in spite of the most careful treatment by the ordinary methods : slitting open the canaliculus, passing tremendous probes, syringing out, etc. Now statistics prove that in about one-half of the cases of epiphora, the symptoms are caused by some stricture or affection in the canaliculi, or lachrymal sac. In about one-third of the cases there is no stricture, the lachrymal sac is most affected ; the probe, if of any reasonable size, passes very readily, and we can find no cause for the epiphora, except a swelling of the mucous membrane of the nasal duct. The first class of cases are amenable to the usual methods of treatment, but in the latter, the epiphora returns again and again. And why? Simply because the seat of the disease is in the mucous membrane of the nose, and until we cure this, we cannot possibly prevent the inflammation from spreading up the nasal duct, and obstructing the free passage of the tears. I have, in late years, cured many cases of long standing epiphora, in which there was no stricture and no affection of the lachrymal sac, simply by treating the mucous membrane of the nose.

Nearly all persons who suffer from chronic hypertrophic rhinitis are also subject to epiphora ; the latter varies according to the swelling of the mucous membrane of the nose. When there is little swelling, or to put

it more plainly, when the patient can breathe through the nose, there is little or no epiphora. When the mucous membrane is swollen and the nostril is closed, the epiphora is well marked. These symptoms are very common indeed, at least in Yorkshire; but the ailment is so slight and varies so much, that in most cases the patients do not seek medical advice for the epiphora, and it is only when they come to you for the rhinitis that you see these cases. I have seen very few cases of chronic rhinitis in which these symptoms were not well marked.

In most cases of mucocoele or of abscess of the lachrymal sac, especially in cases of recurrent abscess, we find some affection of the corresponding side of the nares. Dr. Gruhn (*Centralblatt für Augenheilkunde*, 1888, p. 438) found that out of thirty-eight cases of mucocoele the nose was affected in thirty-six cases. Faravelli de Kruch (*Annali di Ophthalmologie*, VI., 1887) reports that out of thirty-five cases the nose was affected in thirty. I have at present a young lady, from York, under treatment, who is suffering from caries of the lower turbinated bones. She has had several abscesses of the left lachrymal sac which have been so carefully and well treated that the scars over the sac quite disfigure one side of the face. The nose had never been examined. Mucocoele not only gives rise to epiphora, but in most cases, also to conjunctivitis, and often keratitis. In all cases of unilateral conjunctivitis we ought, therefore, to carefully examine the lachrymal sac and nares, just as in all cases of one-sided rhinitis or polypi we ought always to examine the maxillary sinus.

There is a peculiar and typical affection of the conjunctiva and cornea, phlyctenular ophthalmia or marginal keratitis, which is very common in children, and which has a great tendency to recur. If the eyes are once affected the disease is sure to recur several times a year for years. In these cases there is nearly always some affection of the nares. If we carefully treat and cure the rhinitis, the ophthalmia will probably not return again. I could relate many cases in hospital and private practice in which the ophthalmia recurred again and again, till the nose was also treated, and then the attacks ceased altogether.

In most cases of ozæna there is epiphora and conjunctivitis, and you often find ulcers of the cornea, which are very difficult to cure. Nieden (*Archiv für Augenheilkunde*, XVI., p. 381) thinks that ozæna is partly due to the fact that the nasal duct is closed, and that thus the tears cannot enter and moisten the mucous membrane of the nose. In all cases of hay-fever the conjunctiva is also affected.

Ziem (*Allgemeine Med. Central-Zeitung*, No. 23, 1886) draws attention to the fact, that in most cases of granular lids there is also rhinitis. He thinks the rhinitis causes irritation of the conjunctiva, and that thus the conjunctiva is more liable to become affected by the trachoma bacilli, a statement which seems to me to be rather far-fetched.

I should like to say in a few words how very important it is, that, before performing any operation on the eye, we ought always to carefully examine the lachrymal passages and remove any obstruction or inflammation there may be there. At the Bradford Eye and Ear Hospital, before performing any operation which necessitates the opening of the eye, we always order the patient to use a sublimate eye lotion (1-5000) for some

days before he enters the hospital. The day before the operation the lotion is applied frequently in the hospital.

There is another class of affections of the eye, to which I should particularly like to draw your attention. I refer to certain cases of muscular asthenopia, with normal vision and accommodation, and also to cases of recurrent enlargement of the conjunctival vessels. I think, that I cannot better illustrate these cases than by recording in a few words two typical cases which have come under my notice :—

Martin F., fifteen, was brought to me in November, 1888, to get some glasses. For about a year he has not been able to read long together. After he has read for about fifteen minutes the eyes and forehead begin to ache and pain. He complains of severe frontal headache, worse in the morning. He has tried all kinds of glasses, had atropine applied for several weeks, without finding any relief whatever. If he does not use the eyes much, the pain decreases, but as soon as he tries to read the old pain returns as bad as ever. I found that the vision was perfect, very slight hypermetropia and slight weakness of accommodation. The fundus was congested. For about two years he has suffered from discharge from the nose, and has not been able to breathe through the nose for some time. I found hypertrophic rhinitis and post-nasal growths. I removed the growths, and applied the galvano-cautery to the nares. In six to seven weeks the headache and pain in the eyes have disappeared, he can read as well as ever and for any length of time, and the symptoms have not returned since.

Mr. T., twenty-eight, saw me in May, 1888. For some months he has noticed that after the slightest irritation—if he smokes, sits up late, drinks a little—the eyes became red, and remained so for a day or two. He looks, as he says, as if he had been on the “spree.” There were subjective symptoms of conjunctivitis : in fact, he complained only of the redness of the eye. I found several large and tortuous vessels in the conjunctiva bulbi, and slight pericorneal injection. The lids were slightly swollen ; the fundus was decidedly congested : vision and accommodation were normal.

Various kinds of lotions, cocaine, hot fomentations, and abscission of some of the larger vessels, failed to prevent recurrence of the symptoms. I examined the nares, found well marked chronic hypertrophic rhinitis, and applied the galvano-cautery. In three weeks the symptoms had disappeared, never to return again.

Gruning (*Medical Record*, January, 1886), Ziem (*Allgemeine Med. Central-Zeitung*, No. 20, 1886), Bettman (*Journal of American Medical Association*, May, 1887), and Maxwell (*Ophthalmic Review*, October, 1888), record similar cases.

Ziem (*Berliner Klinische Wochenschrift*, 37, 1888), Berger (*Archiv für Augenheilkunde*, XVII., p. 293), Woakes (“Nasal Polypus”), and others have proved that some cases of chronic hypertrophic rhinitis and also empyema of the maxillary sinus can give rise to scintillating scotomata, amblyopia, contracted field of vision and glaucoma. Ziem relates one very interesting case of bilateral empyema of the maxillary sinus, in which one eye was affected with glaucoma, and in the other there was

distinct dimness of vision and contracted field. After the treatment of the empyema, the eye symptoms disappeared. Ziem thinks that in these cases the symptoms are caused by venous congestion, through direct communication of the nasal and ophthalmic veins and not by any reflex vasomotor action.

Woakes ("Nasal Polypus," p. 63) says:—"Occasionally one meets "with defective vision in conjunction with disease of the ethmoidal bone, "and in these, when submitted to ophthalmoscopic examination, hyperæmia "of the fundus has been noted. Thus it would seem that the circulation of "the eyeball, as well as of the lachrymal gland, is in correlation with the "nasal mucous membrane, responding by way of vessel dilatation to "irritation of the latter. Nor will this circumstance excite surprise when "it is remembered that the various branches of the ophthalmic artery "receive their vasomotor nerves from prolongations of the upper cervical "ganglion, through which ganglion the vessel reflexes already traced have "been seen to operate."

Similar symptoms, dimness of vision and contraction of field of vision, have also been observed after the application of the galvano-cautery to the mucous membrane of the nose.

Berger (*Archiv Augenheilkunde* XVII., p. 293) records one case, and Ziem (*Centralblatt für Augenheilkunde*, August, 1887), has seen three cases.

Hack (*Erfahrungen auf den Gebiet den Nasenkrankheiten*, p. 36), published two cases of orbital neuralgia, which were cured by the application of the galvano-cautery, in one case, to some granulation tissue on the middle turbinated bone, and in the other to the middle turbinated bone itself. Nieden also records a case in which severe infra-orbital neuralgia was caused by rhinitis. Empyema of the maxillary sinus is a very common cause of orbital neuralgia. Some weeks ago I saw a case of severe supra-orbital neuralgia, which had been going on for years, and which was at once cured, after I had syringed out the maxillary sinus from the middle meatus.

Tumours from the nares, frontal or maxillary sinuses, or empyema of the sinuses, often give rise to exophthalmus. Nieden records two cases of malignant tumours growing from the nares, followed by bilateral exophthalmus and death. I saw a similar case only a fortnight ago. The peculiarity of these cases is, that they begin as apparently ordinary nasal polypi, which bleed very readily, and which suddenly develop into rapidly spreading malignant tumours.

Hartman (*Berliner Klinische Wochenschrift*, p. 325, 1884), records a case of orbital abscess following acute rhinitis. F. König (*Inaugural Dissertation, Bonn*, 1882) has collected forty-three cases of hydrops and empyema of the frontal sinus, which affected the orbit. Peltesohn (*Centralblatt für Augenheilkunde*, p. 35, 1888) records three cases of empyema of the frontal sinus, which burst into the orbit. Nieden also reports a similar case.

These few facts prove that, in some cases at least, there is a close connection between the diseases of the nose and of the eye. They prove that, in these days of rapidly growing specialism, we should be careful

not to forget that one organ, although it may have its special functions and special diseases, is still only a part of a part or of the whole, and that we ought always carefully to examine and see if the one disease be not in some connection with some affection of a neighbouring organ, or with some constitutional disease.

ON APROSEXIA,¹

Being the Inability to Fix the Attention and other Allied Alterations of the Cerebral Functions caused by Nasal Disorders.

BY DR. GUYE,

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DURING the last ten or twenty years a great number of authors in various countries have drawn attention to disorders of the nose, and to the remote effects of such disorders in other organs. Voltolini was the first to observe the dependence of many cases of asthma on nasal polypi. Hack, the lately deceased professor in Freiburg, described a series of pathological nasal reflexes, and, although the rather complicated theory by which he tried to explain them is open to deserved criticism, he has the merit of having promoted observations and discussions which have much enlarged our knowledge of these pathological reflexes.

I believe it is generally admitted that we have the right to consider as pathological nasal reflexes only such symptoms as can be looked on as modifications of the normal nasal reflexes. So may the normal expiratory nasal reflex, sneezing, be changed into nasal cough and asthma; so may the vasomotor reflex be exaggerated and produce local hyperemia of various regions of the head and face, morbid sensitiveness to alcoholic stimulants; so may the secretory reflex give rise to unnatural flow of tears, and to conjunctivitis, as in hay fever. But besides abnormal reflexes, nasal disorders will produce disturbances in contiguous organs which are open to other more simple mechanical interpretation. All aurists are but too well acquainted with the influence of nasal disorders on the tympanic cavity, and on the organ of hearing.

That nasal disorders, acute coryza, as well as the most chronic forms of nasal obstruction, influence the cerebral functions in a more or less serious manner has been known to all who have given any attention to diseases of the nose; but it has not, I believe, received the attention it deserves, especially from the general practitioner. If it were known generally how many cases of chronic headache, of inability to learn or to perform any mental work, are due to chronic disease of the nose, many of these cases would be easily cured, and the number of children who are victims of so-called over-pressure in education would, I firmly believe, be notably reduced.

¹ This is the completed paper, a portion of which was read in the Otological Section of the British Medical Association's meeting at Leeds, August, 1883.

I have for a long time past made a point of studying the impairment of the cerebral functions caused by disorders of the nose, and I have given the name of aprosexia (from *πρὸς ἑξῆς τὸν νότον*) to one of the symptoms which seems to me to be next to headache, the head symptom, or in other words, the elementary and generally the initial symptom. What I call aprosexia is the inability to fix the attention on any definite more or less abstract subject. A young man—a student, for example—will try to read. After having read a sentence he will have to read it again, three, four times and more, and in some cases he will then know what he has read, and go on, always struggling with the same difficulty. In other cases he will not know it even after reading it repeatedly, and will throw away the book or newspaper and fear to take it up again. If it was a lesson which he had to learn, and he has at last been able to master it, after one or two days he will have forgotten all about it, and have to begin anew. The slightest mental exertion will give him headache, he will not be able to learn anything by heart, and will not get on with his studies. Some schoolboys will feel an inability to get on with some special branch of study—for example, mathematics—others with history, being unable to remember any dates or numbers. The headache will be sometimes permanent, but it is mostly intermittent; in some cases it will be there regularly in the morning after rising, in others it will come up at school-time, as the result of the slightest mental exertion.

Case 1: The first case which attracted my attention was that of a boy whose sister was under my treatment for ear disease in connection with nasal obstruction. The father asked leave to bring me his boy, who had no ear-disease, but who could not breathe through the nose, and could not learn anything. I found complete nasal obstruction, and the boy, who had been to school for a year, had not been able to learn more than the three first letters of the alphabet. I removed a mass of adenoid tumours from the naso-pharyngeal cavity, and when his father brought him again, a week later, he told me that his son had learnt the whole alphabet in that week, and that he thought him all right now.

This case remained for a long time a unique one in my observations, and it is only since more general attention has been given to the remote effects of nasal disorders, that I found out how numerous are the cases resembling this one in more or less particulars.

It is with aprosexia as with giddiness in Ménière's disease. If the aurist asks all his patients complaining of ear disease if they suffer or have suffered from giddiness, he will receive an affirmative answer in a great number, perhaps in the majority of his cases. If the physician in all cases where giddiness is complained of makes a rule of examining the state of the ears, he will, as well as the aurist, discover a relation between giddiness and ear disease in a great number of cases. But the patient will rarely find it out for himself: on the contrary, very often he will be quite incredulous when he is told that his giddiness and his vomiting are caused by the state of his ears. So you may treat a great number of cases of nasal obstruction, either on account of secondary aural or perhaps laryngeal lesions; and if you do not inquire after the existence of aprosexia or headache, very few patients will complain of these

symptoms. If, on the contrary, you make a rule of enquiring after them in every case, you will be astonished at the frequency of these complaints. It is of more importance still that medical men in general practice be impressed with the frequency of that relation, and that they make it a rule in every case of habitual headache, and inability to work, and loss of memory, to inquire into the state of the nose, and to ascertain if the normal nasal respiration be not impeded, and habitually or temporarily superseded by breathing through the mouth.

Some of these cases are boys at school or at college, who complain of headache as soon as they have been for an hour or two at school. The master, seeing that they are unable to work, sends them to take a walk or sends them home for a holiday of some weeks. They are treated by rest and iron, and when they come back the same symptoms recur. After a local treatment of their nose and naso-pharynx, and generally as soon as their nasal respiration is restored, they are quite well, and get on with their work as well as others.

Case 2 : A typical case of this class was the following :—A boy of fourteen, J. A., was brought to see me on 4th May, 1888. Since an attack of croup in his childhood, he had always coughed much, and had had a bad cold two or three times a year. For a year he had very often had headache ; it began generally in the morning, got worse in school, and rather better in the open air. At the same time he had aprosexia, and often a circumscribed redness on the forehead. The master then sent him away to have a walk because he was not able to learn anything when in that state. As medical treatment had proved of no avail, and the mother of the patient thought the ailment rather serious, she had just decided accordingly to the advice of her doctor to have a consultation with a psychologist, when another doctor, a relative of hers, advised her to bring the boy first to me, because it might be that the cause of his illness would be found in some nasal condition. I found the hearing power reduced in both ears : right ear, watch 0'50 m. ; left ear, 3 m. (normal distance 9 m.) In the right ear there was some hard black cerumen, which I left for removal on a later occasion. In the pharynx I discovered a few flat infiltrations, indicative of larger adenoid infiltrations in the naso-pharynx. On digital exploration I found these, and scraped part of them away with my finger nail and subsequently with my annular curette. After this, and after the Politzer's douche I found the hearing power, right ear, 2 m., left ear, 6 m. On the 11th of May (after a week), right ear, 1'50 m., left ear, 6 m. No headache had occurred at all the whole week. The cerumen in the right ear was removed. After this and Politzer's douche hearing was in the right ear, 2 m., left ear, 6 m. On the 18th of May, right ear, 2 m., left ear, 8 m. On the 25th of May, right ear, 2 m., left ear, 6 m. No headache. I removed instrumentally a rather large adenoid tumour. After Politzer's douche, right ear, 2'50 m., left ear, 8 m.

I did not see the patient again, but I heard from his relatives that he remained quite well. From the first day of the treatment the patient, whose headache and aprosexia were of such an alarming nature that a psychological consultation was intended, had not had headache again for a moment, and his working or learning powers were quite restored.

Then I have seen students working for an examination who, having tried repeatedly to read with a special tutor, and observing that after a week they had forgotten everything, gave it up for half a year, and tried again with the same result. After a local treatment of the same kind as mentioned above, their working power was restored, and they took their degree after a few weeks' work.

Case 3: Mr. F. F., aged twenty-six, a student of law in Leiden, came under treatment on January 26, 1888. Two years ago he had had nasal obstruction for some time, and was treated with nasal injections. Since that time he has always breathed only through one nostril at a time, and at night he breathes through the right nostril when he is lying on his left side, and through the left one when lying on the right side; at the same time he keeps his mouth shut. In October of last year he had for a time a catarrh of the tympanum, with ringing in the ear and loss of hearing. After some treatment by Politzer's insufflation, these symptoms disappeared. He was also troubled with giddiness for some time. Headache he had often formerly, now rarely. Alcohol always produced much congestion. His complaint now was loss of memory, which made his reading for an examination quite impossible. He had twice taken a special tutor, but had had to give up studying because anything which he had mastered with great application he forgot regularly after a fortnight. Hearing power in the right ear was 0.50 m., in the left ear, 0.60 m. The membrana tympani, right and left, were normal. The pharynx was normal. Water injected into the nose ran round normally. The mucous membrane of inferior turbinated bone was rather hypertrophied on both sides. In the naso-pharynx adenoid tumours were found and removed, partly by the finger nail and partly instrumentally. After this and Politzer's inflation hearing power was, right ear, 0.80 m., left ear, 1 m.

February 7, right ear, 1.50 m., left ear, 2 m. The right turbinated bone was treated with cocaine and solid nitrate of silver on a probe.

On February 21, right ear, 2 m., left ear, 3 m. The patient reported that he got on better with his reading. Treatment of the left nostril was conducted in the same way as for the right on the former occasion.

On March 29, right ear, 2.50 m., left ear, 4 m. The memory was quite normal again. Four days before this the patient had passed his examination successfully. On this day I removed a cartilaginous crista from the left side of the septum narium, and I did not see the patient again. I only heard afterwards from relatives of his that his condition remained excellent.

Remarkable in this case was (1) the exaggerated sensitiveness to alcoholic stimulants, which is frequently observed, and which must be the consequence of an exaggeration of the vasomotor reflexes; (2) the alternative respiration through one nostril only at a time; and (3) the *experimentum crucis*, i.e., the successful result of his examination a few weeks after the close of the treatment.

Another rather remarkable case recently treated was the following:—

Case 4: Mr. Herman K., aged seventeen, was brought to me by his brother, a young medical man, on July 10, 1889. He had been treated some four or five years ago on account of nasal obstruction and headache,

by a laryngologist in Cologne, by cauterization of the nose, with rather good temporary result. Nevertheless he continued to sleep with his mouth open, and he suffers now and then from headache and aprosexia. Since February last he got worse, and was no longer able to do any mental work. He often reads the simplest things four or five times over without knowing what he has read. He is staying in the country now doing nothing. To read a newspaper, or to take a walk in rather warm weather, is enough to produce headache. His general health is not very good. A year ago he weighed one hundred and twenty-six pounds, now only one hundred and six. He makes no complaints about the ears; there is no ringing, and no giddiness.

Hearing power right and left, 3 m. On the pharynx I found large flat adenoid infiltrations, the mucous membrane of inferior turbinated bones rather swollen, and on digital exploration the pharyngeal tonsil largely hypertrophied. I removed it partly by the finger nail, and partly instrumentally, and prescribed saline nasal injections and a contra-respirator for the night.

July 25. He has had no headache at all. Aprosexia a great deal better. The contra-respirator is still employed every night. Cauterization of the right inferior turbinated bone with nitrate of silver.

August 1. Same treatment on the left side, and removal of some remaining part of the pharyngeal tonsil.

August 29. A week after the last consultation, the patient, after an exposure to rain and cold, had a slight acute nasal catarrh, with some catarrh of the left tympanum, and ringing in the left ear, which still persists, with some redness and concavity of the membrane. After inflation, according to Politzer's method, the symptom subsided and did not return. He now weighs again one hundred and twenty-six pounds, has had no headache, and works without any difficulty for his admission into an agricultural school.

Nov. 7th. The brother of the patient came to tell me that his brother was quite well, that he slept now with his mouth shut, and would continue the after-treatment for some time. The result of the treatment was very satisfactory indeed, especially on account of there being a rather strong hereditary nervous predisposition. The father has been in a lunatic asylum for some years, one brother has been suffering from epilepsy, and the patient himself was considered to be a very neurasthenic boy.

Nearly all the cases I observed were boys or young men at school or at the university. The only female case was a young girl preparing for the study of pharmacy, an exception which confirms the rule. As a rule in fact, cases of aprosexia nasalis are found in young people studying or preparing for study, or especially for examinations, and generally they would be looked on as cases of over-pressure in schools.

Now I am far from denying the existence of over-pressure in education, especially in the latter half of the nineteenth century, nor of our duty to try to keep it within rational limits. But when we see a number of cases, which to a superficial observer are victims of over-pressure in schools, give way to local treatment of the nose, we must acknowledge that what

is looked on as the result of over-pressure is very often caused by a morbid state of the individual, and is open to a very effective treatment.

As to the physiological interpretation of the symptoms of aprosexia, we must first keep in mind that in a psychological aspect the inability to direct the attention on a particular subject, and to fix cerebral impressions in the memory looks much like a symptom of fatigue or cerebral exhaustion. But we cannot logically call something a symptom of fatigue when it exists very markedly in cases where there can be no question of fatigue.

It may of course be, and in fact it is, very often caused by fatigue : and, in the same sense as Dr. Charlton Bastian, speaking of aphasia, at a meeting of the British Medical Association two years ago, said very rightly that after a certain age we all of us suffer more or less from aphasia, so I might say that we all suffer from aprosexia when we are tired or overworked. But the question is, How is it that this cerebral symptom of exhaustion is produced by nasal disorders? I think in this way : Cerebral exhaustion must be the consequence of one of two causes. Either the nutrient matter which has to repair the loss produced by the function of the brain is not yet sufficiently procured or assimilated, or the products of the "tissue change," which have to be eliminated, are incompletely removed. This removal will, according to physiological principles, have to take place, partly, at least, by means of the lymph vessels : and, in this respect, we must point to the fact found by Axel-Key and Retzius, that large lymph vessels leave the cerebral cavity together with the fibres of the olfactory nerve. It is highly probable that structural changes in the nasal mucous membrane, and especially such as will exert pressure on the lymphatics, will impair or prevent the current of the cerebral lymph through the nasal mucous membrane. The retention of the products of the chemical processes in the tissues of the brain will lead to results which we may expect to be the same as those of physiological exhaustion, that is, of fatigue.

Besides structural changes, it is evident that local hyperæmia, which is so frequently seen as a pathological nasal reflex, will be apt to produce the same pressure on the lymphatics. And in this respect some cases of paroxysmal vasomotor aprosexia are very interesting. In these cases the aprosexia was not constant, but was produced especially by causes which influence the vasomotor reflexes, as change of temperature, coming from the cold into a warm room, and the paroxysms were accompanied by very marked redness of a spot on the forehead, corresponding to the frontal sinus. These paroxysms lasted from a quarter of an hour to an hour or more, and the patient was unable to understand and to recollect things which were told or explained to him during that time, which he could do quite well as soon as the paroxysm was over.

As to the way in which headache is produced in cases of disorders of the nose, especially by swelling of the mucous membrane, I have proposed the following explanation. The air contained in cavities communicating with the nose will be absorbed, and its pressure diminished, as soon as the free communication with the nose is impaired by the swelling of the mucous membrane. So it is with the tympanic cavity, with the frontal

and other sinuses. Such a cavity will then begin to act as a dry cup, and produce collateral hyperæmia *ex vacuo*. We have, so to say, an *experimentum crucis* for this sort of headache in the experiment of Politzer. In this experiment air is not only drawn into the tympanic cavity, but at the same time into the sinus communicating with the nose; and, in fact, when such patients are treated by Politzer's insufflation at the time when headache is present, we see it almost constantly disappear for a shorter or longer period. We see the same happen very often in cases where an acute catarrh of the tympanum produces tenderness of the mastoid process, which tenderness, in its first stage at least, disappears after an inflation by Politzer's bag.

A few words about the relation between aprosexia and neurasthenia. A friend of mine, who is a psychologist, had the kindness to give me, as his opinion on my first publication on the subject, that he quite agreed with me as to the description of aprosexia, and that he had found the symptoms in a number of patients, but that he was inclined to consider aprosexia as a symptom of neurasthenia. I would not like to go so far as that. It is true of aprosexia, as well as of other pathological nasal reflexes, that they mostly occur in neurasthenic patients. But when by local treatment all the symptoms are cured and the patient restored to health, I think it is more natural to consider the local disorder as the cause of the symptoms than to look on that disorder as a symptom of general neurasthenia.

Case 4 seems very striking in this respect. A different question is this: Is a neurasthenic disposition a necessary soil for the production of nasal reflexes and of aprosexia? And this question, I think, we are not yet able to solve definitely for the present. I think we are not far from the truth if we admit, from an etiological view, three forms of aprosexia, that is, (1) physiological aprosexia as the result of cerebral over-exertion or fatigue; (2) neurasthenic aprosexia, where the cerebral exhaustion is produced by abnormal irritability and restlessness; and, (3) pure nasal aprosexia, where the exhaustion is produced by retention of the products of tissue change. Of course, the three forms will admit of various combinations and complications.

I will add a few words as to the treatment which I have found successful in most of my cases. After a careful examination, I generally treat at the first consultation the naso-pharyngeal cavity; after a week I treat one side of the nasal passages, and after another week the other side. If there are important anomalies in the septum narium, I remove them either with Dr. Bosworth's saw or with the chisel. The mucous membrane of the spongy bones, and especially that of the inferior one, I cauterize with solid nitrate of silver melted on the point of a silver probe, after having used cocaine previously. At the same time I make the patient syringe his nose two or three times daily with appropriate solutions of chloride of ammonium, and salt ($\frac{1}{2}$ per cent. of the first and 1 per cent. of the second), and I let him wear at night a contra-respirator to control his nasal respiration during sleep. Lastly, I have found it very useful in a number of cases to let the patient make a gaseous menthol insufflation after the syringing, and with the same instrument which the

patient uses for that purpose, he can be taught to apply a Politzer's douche, which often is a great relief to him. When the secretion in the nose is very scanty, I found the internal administration of iodide of potassium in solution (1 to 2 grammes *de die*) very useful. Sometimes I prescribe the liq. chlor. ferri, 5 to 10 drops, three times a day internally, and 2 to 10 drops in a tumberful of 1 per cent. salt solution for syringing the nose. Of course, the individual predilection and habit of each medical man will make him take different ways of arriving at the same end, the cure of the patient. And this will be attained in a great number of cases. According to my experience, the prognosis is very good on one condition, and that is, that we have to do with real acquired aprosexia, and not with cases of congenital idiocy even of a slight degree. I say this because parents having heard of aprosexia, are very prone to consider their weak-minded children as suffering from that disease, and to make to themselves illusions as to the result of the treatment. It is very important not to indulge in these illusions in any case where the inability to do mental work is congenital, even when we see such children having nasal obstruction and breathing through the mouth. But when it is ascertained that the patient has a good intellect, and that the development of his aprosexia has coincided with nasal obstruction and breathing through the mouth, then there is hope; and in such cases I would like to make a variation on the words made popular by Catlin, "Shut your mouth and save your life," and to say: "Shut your mouth and save your brain."

THERAPEUTICS, DIPHTHERIA, &c.

JELENFFY (Budapest). — **A New Nasal Speculum.** *Berl. Klin. Wochenschr.*, 1889, No. 38.

THE author describes a new nasal speculum, which can be fixed on to the forehead of the patient, so that the operator has both hands free. The speculum does not cover the space under the nose. Michael.

SANDBERG, A. G. (London). — **Poisoning by White Precipitate.** *British Medical Journal*, March 30, 1889.

THE patient, a woman aged forty-eight years, took by mistake 20 grains of white precipitate for sal-ammoniac. She soon complained of a burning sensation in the throat; at the end of thirty-six hours the mouth became sore, and the saliva flowed freely. After forty-eight hours the gums became very swollen and covered with a grey fur, and ulcers appeared on the inside of the lips and cheeks. Mercurial stomatitis rapidly developed and reached its climax on the fourth day: the lips, cheeks, and tongue were very swollen, and there were extensive brawny swellings over the parotid and sub-maxillary regions. Numerous ulcers developed on the

inside of the lips and cheeks, and under the tongue. Saliva excessive, and breath fetid. Recovery under washes of Condy's fluid and chlorate of potash, and the internal administration of chlorate and iodide of potash, with careful feeding.

Hunter Mackenzie.

BURGHARD (Wien).—Treatment of Diphtheria. *Wiener Med. Wochenschr.*, 1889, Nos. 39, 40.

RECOMMENDATION of insufflations of chinin muriat. and flores sulphuris. Michael.

HENOCH.—On Diphtheria. *Verein für innere Medicin in Berlin, Meeting*, October 14, 1889.

THE author reports upon 192 cases observed in the Charité during 1886-87. He eliminates two classes—(1) The cases in which differential diagnosis cannot be made between angina follicularis and diphtheria. (2) Diphtheria scarlatinosa. Doubtful cases occur very often in private practice, and often are cured without any certain diagnosis. Of the 192 cases, 110 were localized on the pharynx, in 82 the disease progressed to the larynx. Of 70 tracheotomized children, nine—i.e., 13 per cent.—were cured. Fever was often absent even in bad cases. Only in five cases did suppurating submaxillary glands occur. Albuminuria was frequent, but is not of such bad prognosis as in scarlatina. Paralyses were observed in some cases. Many new remedies were tried without effect. The best results were obtained with acetic acid, as recommended by Engelmann. The publications of the *Reichsgesundheitsamt* prove that German diphtheritic epidemics are of very malignant nature. Michael.

CANE, LEONARD (Peterborough).—The Treatment of Diphtheria by Salicylic Acid. *British Medical Journal*, April 26, 1889.

THE author recommends the local use of salicylic acid dissolved in liq. ammon. acetat., or the salicylate of soda (3 ozs. to aq. 3 viij).

Hunter Mackenzie.

HINTON, JOSEPH.—Treatment of Diphtheria. *British Medical Journal*, April 20, 1889.

THE author recommends the following local application:—℞—Acidi carbolici ℥ii. ; liq. ferric perchlor. ℥i. ; acidi sulphuros. ℥vi. ; glycerini ℥i. Misce. et fiat pigmentum.

Hunter Mackenzie.

WICKS, W. CAIRNS (Newcastle-on-Tyne); **THOMSON, W. SINCLAIR** (London).—The Treatment of Diphtheria. *British Medical Journal*, April 13, 1889.

THE former recommends the local application, by brush or spray, of carbolic acid one part, sulphurous acid three parts, solution of perchloride of iron and glycerine four parts. The latter recommends the use of carbolized iodine solution and iodised phenol (see Martindale's Pharmacopœia). The solution without glycerine acts more quickly and more energetically.

Hunter Mackenzie.

JONES, TALFOURD (Brecon).—**Diphtheritic Gastritis or Gastric Diphtheria.** *British Medical Journal*, April 20, 1889.

NOTES of a case of diphtheria of the fauces and larynx, in a child aged two years and ten months, in which a croupous membrane was found lining the whole of the interior of the stomach. Hunter Mackenzie.

LORD, F.—**Tracheotomy in Diphtheria.** *British Medical Journal*, March 16, 1889; *Southern Branch, British Medical Association*, February 21, 1889.

THE author advocates early tracheotomy, and the employment of skilled attendance during the after treatment. Hunter Mackenzie.

JAKINS, PERCY.—**A Case of Intubation.** *British Medical Journal*, April 20, 1889.

A SUCCESSFUL case in a child, aged five years, the subject of cedematous laryngitis following measles. Hunter Mackenzie.

INGLOTT, G. F. (Malta).—**Counter-Irritation in Whooping Cough.** *British Medical Journal*, April 20, 1889.

COUNTER-IRRITATION is applied to the pneumo-gastric between the mastoid process and the angle of the lower jaw. Only one illustrative case is recorded. Hunter Mackenzie.

MOUTH, TONGUE, PHARYNX, &c.

CUMMINS, ASHLEY (Cork).—**Primary Specific Sore of Lip.** *British Medical Journal*, April 6, 1889; *Cork Medical and Surgical Society*, March 27, 1889.

A WATER-COLOUR sketch of this was shown. The patient, a young girl, got inoculated through kissing. Secondary symptoms and a large submaxillary bubo developed. Hunter Mackenzie.

HASLAM (London).—**Successful Treatment of Epitheliomatous Growth of the Lip, after Recurrence.** *British Medical Journal*, April 20, 1889; *Medical Society of London*, April 15, 1889.

EXHIBITION of case. The disease had recurred twice; at the last operation it was found necessary to remove part of the bone. Hunter Mackenzie.

LONDON, A. A. (Australian).—**An Infant with Two Mouths.** *Australian Medical Gazette*, March, 1888.

THE two mouths were not completely separated from each other, and communicated with a common pharynx. The tongue was double, but the larynx was single. Hunter Mackenzie.

FEHLEISEN (Berlin).—**Ligature of both Lingual Arteries in a Case of Congenital Macroglossia.** *British Journal of Dental Science* January 15, 1888.

Two cases are recorded with good results.

Hunter Mackenzie.

PICKERING (Bristol).—**Leucoma of the Mouth.** *British Medical Journal*, March 16, 1889; *Bristol Medico-Chirurgical Society*, February 13, 1889.

EXHIBITION of a woman, aged fifty-three years, who had noticed a white patch for the first time three years previously. At present the tongue, lips, gums, and floor of the mouth were covered with a firmly adherent white pellicle. There was a small growth, probably epitheliomatous, growing from the gums.

Hunter Mackenzie.

BARWELL, RICHARD (London).—**A Lecture on Cancer of the Tongue, and its Removal.** *British Medical Journal*, March 30, 1889.

A DESCRIPTION of the author's method of removing the tongue by means of the *écraseur*, with short notes of 13 cases so treated. Hunter Mackenzie.

BUTLIN, HENRY J. (London).—**Pre-cancerous Conditions of the Tongue.** *British Medical Journal*, April 6, 1889; *Harveian Society of London*, March 14, 1889.

THE author found that in 70 per cent. of cases, cancer had been preceded by a pre-cancerous condition of the tongue, usually warty in character. He recommends removal of the diseased area, and the free use of arsenic in all cases of chronic affection of the surface of the tongue in which the disease was associated with various non-specific affections of the general integument. A discussion followed.

Hunter Mackenzie.

MACKENZIE, STEPHEN (London).—**Associated Paralysis.** *British Medical Journal*, March 30, 1889; *Clinical Society of London*, March 22, 1889.

EXHIBITION of a man, aged thirty-five years, with associated paralysis of one half of the tongue, soft palate, and vocal cord, with paralysis of the sterno-mastoid and respiratory part of the trapezius on the same side. The author observed that this association pointed to the soft palate deriving its nerve supply from the spinal accessory instead of the facial nerve, as usually supposed. (That the soft palate is innervated by the spinal accessory nerve has been shown both clinically and experimentally.—*Vide JOURNAL OF LARYNGOLOGY AND RHINOLOGY*, Vol. II. p. 237.)

Hunter Mackenzie.

BOUCSEIN, G. F. (Baltimore).—**Tonsillitis.** *American Journal of the Medical Sciences*, October, 1889.

THE author relates an interesting case. A lady had acute tonsillitis, and when on the fourth day she was improving, her son, seven years of age, was attacked with acute follicular tonsillitis, with high temperature (103°) and delirium. On the sixth day he was apparently well, but exactly three weeks after the child's legs swelled; afterwards the lower eyelids: convulsions followed, ending in coma and death. There had

been no rash, eruption, or signs of scarlatina, and a diagnosis of diphtheria was negatived.

Forty-three cases of tonsillitis have been carefully watched by the author during the last two years. He does not believe that adolescents are peculiarly liable to the disease. Twenty-six of his forty-three cases occurred in males, and six cases gave a distinct history of family tendency to tonsillitis; nineteen cases giving a history of rheumatism. He has met with nine cases in which the disease was spread by contagion. In one case a man with tonsillitis was waited upon by a younger brother, who in turn was affected; the *fiancée* of the former after kissing him had acute follicular tonsillitis within twenty-four hours, and she communicated it to a younger sister. In a second case the patient communicated it to three members of his family; in another case it was communicated to two members of a family by a third; and in another case a young husband communicated it to his wife. He relates a case in which, he thinks, the contagion occurred through a cut on the finger, which the patient wiped with the handkerchief belonging to a man already suffering from follicular tonsillitis.

The author has five times out of forty-three cases met with albuminuria, and with acute nephritis in one, which the author is certain was nothing more than tonsillitis. In this case the patient's wife was affected with follicular tonsillitis, and the only child, in the same room with these two, was taken ill, with considerable congestion of one tonsil, high temperature, and lobar pneumonia. The mother, who had recovered from her first attack, and had nursed the child to its convalescence, was a second time attacked with tonsillitis, which ended fatally from œdema of the epiglottis.

He has met with only three cases in which cardiac symptoms could be connected with tonsillitis; in two a systolic apex murmur was developed, lasting respectively two and four weeks. He has seen one case in which all the symptoms of acute rheumatic fever developed during an attack of acute tonsillitis. In three cases enlargements of the sub-maxillary glands occurred. The diagnosis of tonsillitis from scarlatina before eruption occurs is difficult; history of exposure to scarlet fever and vomiting which is rare in tonsillitis, are points of importance. The diagnosis from diphtheria is chiefly difficult in the punctate form of the latter, especially when it remains tonsillar. One case in which abrupt invasion, high initial temperature, absence of glandular tumefaction or albuminuria, the yellow colour of the deposit, and absence of tendency to asthenia, caused him to diagnose tonsillitis, was the cause of ten cases of violent diphtheria in the patient's own and neighbouring families, and was followed by seven deaths. It is better to err on the safe side and isolate all cases of follicular tonsillitis as if they were diphtheria.

The only local treatment the author uses in tonsillitis consists in poulticing the outside of the throat, inhaling steam, and incising when there is abscess. He is very sceptical as to the curative or abortive power of any remedy in acute tonsillitis; it is a specific disease, running an average course of three and a half days in spite of all treatment.

R. Norris Wolfenden.

HELBING.—Treatment of Pharyngitis Phlegmonosa. *Munchener Med. Wechschr.*, 1889, No. 41.

THE author has treated 10 cases of this disease by applications of croton oil to the skin of the affected side. In all cases the disease was cured in a short time, and without suppuration. Michael.

KAFEMANN (Königsberg, East Prussia). — Electrolytic Treatment of Chronic Catarrh of the Pharynx. *Deutsch Medicinal Zeitung*, No. 70, 1889.

THE author recommends electrolytic treatment of the hypertrophic parts in chronic pharyngeal catarrh instead of the galvano-cautery. He describes the instruments which he applies for such purpose. Michael.

ABUTKOFF, ANATOLY D. (Riga). — Œsophagotomy for Foreign Body. *Proceedings of the Riga Russian Medical Society*, 1889, p. 61.

THE author details the case of a healthy and strong soldier who, while eating "shtchi" (cabbage soup, a Russian national dish), managed to swallow a piece of bone. The latter stuck in his gullet, causing a sharp attack of cough and vomiting, as well as an acute and permanent pain about the root of the neck. On examination twenty-four hours later, the foreign body was found to be fixed 27 centimètres from the upper incisor. All attempts at extracting the bone by means of a coin-catcher and various forceps having failed, the patient was brought under the influence of chloroform (on the third day after the accident), and a left-sided œsophagotomy was performed. The incision was carried from a point above the thyroid cartilage down to the manubrium sterni, dividing the omo-hyoid muscle and the sternal attachment of the sterno-cleidomastoid. The bone, which measured $3\frac{1}{2}$ by $2\frac{1}{2}$ centimètres, and had an irregular shape with many sharp angles, proved to have perforated the œsophageal wall. It was extracted without much difficulty. Both the outer and œsophageal wounds were left open. The after-treatment consisted in irrigation with a 1 per cent. salicylic acid solution and powdering with iodoform (one part) and naphthalin (two parts), the patient being fed through a gastric tube. For a week or so the temperature was oscillating between 37.5° and 39.2° C., the man suffering from bronchitis, with profuse purulent expectoration, while the wound was discharging a rather offensive pus. On the sixth day a piece of dead cellular tissue was removed from the bottom of the cervical wound. From the seventeenth day he became able to swallow fluid food in a normal manner. On his discharge two and a half months after the operation there remained a scar, 4 centimètres long and 1 centimètre wide, which interfered with the lateral movements of the patient's head to such an extent as to render necessary his temporary dismissal from the ranks. Valerius Idelson.

NOSE, NASO-PHARYNX, &c.

VON STEIN, STANISLAW F. (Moscow).—*Coryza Vasodilatatoria Chronica.* *Meditsinskoie Obozrenie*, 1889, No. 17, p. 412.

UNDER the above name Dr. Von Stein describes "a peculiar affection "characterised by a very marked congestion of the whole nasal mucous "membrane, a more or less constant sensation of local dryness (as in the "initial stage of an ordinary cold in the head), occasional discharge of a "clear, transparent mucus, absence of any marked hyperplastic process, "constant or temporary intense congestion of the conjunctivæ and nasal "skin." The affection is invariably symmetrical and eminently chronic (lasting for years). As a rule it is accompanied by a train of such nervous symptoms as general excitement, anxious frame of mind, sleeplessness, incapacity for mental work, failure of memory, headache (often frontal), and sensation of weight about the head, cardiac palpitations, subjective dyspnœa, unsteady gait, tendency to perspiration, etc.

According to the author's theory, the affection represents a chronic disturbance of the vaso-motor nerves of a central origin, and is, possibly, simply a symptom of some more or less profound general nervous disease.

He adduces five cases, referring to three ladies, aged twenty-eight, thirty-two, and forty-three; and two gentlemen, aged twenty-eight and twenty-nine. In one of the ladies, the only generally healthy person of the series, a complete recovery rapidly took place after galvano-cauterisation of the nasal cavities; but in the other four, generally very neurotic persons, cauterisations remained unsuccessful. The administration of bromides slightly relieved some of the subjective symptoms, but on the whole, the treatment proved altogether unsatisfactory.

As regards the diagnosis, the vaso-dilatory coryza must be differentiated from (*a*) bilateral paralysis of the trigeminus; (*b*) syphilitic rhinitis (preceding the development of gummata), which is usually limited to one nasal cavity, and is not accompanied by the said ocular symptoms; and (*c*) *Coryza vasomotoria*, which is characterised by rapidly appearing and disappearing temporary nasal obstruction with tumefaction of the turbinated bodies, profuse thin discharge, and frequent fits of sneezing, and is easily cured by cauterisation.

Valerius Idelson.

TRENDELENBURG.—On Operation for Deflected Noses. *Nederrheinische Gesellschaft in Bonn. Meeting, November 19, 1888.*

IN cases of stenosis during chloroform narcosis the author presses the conchæ towards the wall, and fixes them by introducing iodoform tampons. If the nose has a congenital deflection, he corrects the position by subcutaneous chiselling of the bones, followed by flexion of the nose towards the normal position. Iodoform tampons and Adams' apparatus fix the nose in the new position.

Michael.

SCHUBERT (Nuremberg).—Fungi in the Nose. *Berl. Klin. Wochenschr.*, 1889, No. 39.

THE author has found in three cases of disease of the nose with formation of crusts similar to ozæna, but with an odour differing from that disorder, micro-organisms, which were diagnosed by the botanist, Ferd. Cohn, as *aspergillus fumigatus*.

Michael.

NEVES, J. A. B.—Chlorate of Potash in Ozæna. *Annotation in British Medical Journal*, March 23, 1889. *Extracted from Coimbra Medica*, March 15, 1889.

THE treatment employed was washing out the nasal passages with a 1 in 30 solution of chlorate of potash. In the case recorded the patient is stated to have been completely and permanently cured in two months.

Hunter Mackenzie.

ROSSBACH (Jena).—Round Ulcer of the Cartilaginous Septum of the Nose. *Korrespondenzbl. d. all. Aerzte Verein in Thüringen*, 1889, Heft 2.

THE author describes rare round perforations of the septum, the genesis of which cannot be determined, and which have no relation to syphilis. He believes them to be probably due to local thrombus of the vessels.

Michael.

ROTHHOLZ (Stettin).—Habitual Epistaxis. *Dtsch. Med. Wochenschr.*, 1889, No. 41.

IN most cases habitual epistaxis is caused by ulcerative processes of the cartilaginous septum. Only in one case was the author able to find on the left middle concha a slightly bleeding point. By cauterizing this point the patient was cured.

Michael.

BRONNER, ADOLPH (Bradford).—Pseudo-Hay Fever. *British Medical Journal*, March 23, 1889; *Leeds and West Riding Medico-Chirurgical Society*, March 1, 1889.

A DISCUSSION on the form, symptoms, etiology, and treatment of nasal catarrh, which elicited nothing new.

Hunter Mackenzie.

HERZOG (Graz).—Retro-Nasal Catarrh. *Archiv. für Kinderheilk.*, Bd. 11, Heft 2.

A WELL written report.

Michael.

FRIEDLANDER (Berlin).—Therapeutics of Empyema of the Antrum of Highmore. *Berlin Klin. Wochenschr.*, 1889, No. 37.

THE author gives a review of the different methods of operation, and then relates that in Krause's clinic the after treatment consists in insufflation of iodoform or iodol into the antrum. The perforation is made by a trocar introduced into the nose, and introduced into the antrum if the membranous septum has been reached. Nine communicated cases illustrate the procedure.

Michael.

STEWART, DONALD (Nottingham).—**Suppuration of the Antrum of Highmore.** *British Medical Journal*, March 16, 1889; *Nottingham Medico-Chirurgical Society*, March 1, 1889.

THREE cases were described in which pus was detected by syringing the antrum through the natural opening in the middle nasal meatus. The author inclines to the idea that in such cases the nasal disease precedes that of the antrum.

Hunter Mackenzie.

LARYNX, &c.

GOTTSTEIN (Breslau).—**Illumination of the Larynx.** *Dtsch. Med. Wochenschr.*, 1889, No. 41.

THE author has tried the method in several cases of disease of the larynx, but has not had any diagnostic results of value.

Michael.

RAUTHACK.—**Contribution to the Histology of Polypi of the Vocal Bands.** *Monatssch. für Ohrenheilk.*, 1889, No. 9.

THE author has made microscopical examination of 15 polypi of the vocal bands, and relates his results. Of glands, or portions of them, in no case were any found.

Michael.

HUNTER, WALTER (Nottingham).—**Spontaneous Expulsion of a Laryngeal Tumour by Coughing.** *British Medical Journal*, April 13, 1889.

The growth was expelled after coughing; its expulsion was followed by some hæmorrhage. It is described as a "solid, softish growth, about the size of a horsebean, fairly regular in shape, covered entirely by healthy mucous membrane, with the exception of a small circular patch, about the size of a split pea, which was red, raw, and granular, and was plainly the site of attachment." On section, it looked like a fibroma (no microscopical examination). It was thought to have grown from the left vocal cord.

Hunter Mackenzie.

STOKER, GEORGE (London).—**Auto-intra-Laryngeal Operation.** *British Medical Journal*, March 23, 1889; *Medical Society of London*, March 18, 1889.

EXHIBITION of a patient, aged thirty years, who had been the subject, from about the age of seven years, of growths in the larynx. He seems to have suffered much at the hands of physicians, surgeons, and specialists,—one having operated on him about 100, and another about 120 times—and at last he took his treatment in his own hands. He used the mirror and forceps, and successfully removed the growths (multiple papillomata).

Hunter Mackenzie.

ROBERTSON, WILLIAM (Newcastle-on-Tyne). — **Cauliflower Excrescence of the Larynx.** *British Medical Journal*, March 30, 1889; *Northumberland, etc., Medical Society*, March 14, 1889.

EXHIBITION of patient, who had much improved after tracheotomy.

Hunter Mackenzie.

HUNTER (Nottingham). — **Laryngeal Growths.** *British Medical Journal*, April 6, 1889; *Nottingham Medico-Chirurgical Society*, March 15, 1889.

THIS was spontaneously expelled by coughing, followed by free hæmorrhage. The growth was a dense, spherical fibroid tumour, three-eighths of an inch in diameter, with a distinct line of attachment.

Hunter Mackenzie.

TROIANOFF, ALEXÉI A. (St. Petersburg). — **On Typhoid Laryngeal Perichondritis.** *Obshchevsky Hospital Surgical Reports*, 1889, p. 88.

THE author describes the case of a male patient, aged twenty, in whom, immediately after a severe attack of enteric fever, there developed intense perichondritis of the cricoid cartilage, which was rapidly followed by grave laryngo-stenosis. A superior tracheotomy was performed without delay. The patient recovered after the operation, but the perichondritis did not yield to any measures. A permanent laryngo-stenosis remained, the treatment by mechanical dilatation proving utterly unsuccessful.

Valerius Idelson.

WASSERMANN (Heidelberg). — **On Extirpation of the Larynx.** *Deutsch. Zeitschr. für Chir.*, Bd. 29, Heft 5 and 6.

THE author reviews the history of the operation. He remarks rightly that statistics of such an important operation must be given up to date in order that a judgment of its proper value may be obtained. In the great majority of the cases tracheotomy has been performed some time before the major operation, often indicated by dyspnœa. In seven cases it was not performed at all. It is of advantage to perform deep tracheotomy. To prevent the entrance of blood into the trachea this must be tamponned. There are three forms of operation: (1) total extirpation; (2) half extirpation; (3) resection. The author then describes the *technique* of these three forms and their indications, and discusses the differential diagnosis. He then gives a table of 49 cases not yet published. Of 118 cases of total extirpation eight have been definitively cured, living for four and a half years after the operation, or having died later from intercurrent diseases; 41 cases have died within fourteen days in consequence of the operation, mostly from pneumonic affections (which could be prevented by permanent tamponning.) Of 50 cases of partial operation, 5 have been positively cured, and 14 have died in consequence of the operation. The result of this operation is not yet very favourable; partial extirpation is, however, not so dangerous as total, and gives better functional results. The results will be better if the operation is performed earlier.

The author then relates three cases of laryngeal carcinoma in which an operation was performed: (1) A patient, forty-eight years old, very dyspnœic, hoarse for half a year, was tracheotomised. Three days later the laryngoscope showed a tumour of the right ventricular band. Partial

extirpation was performed; death followed from pneumonia. (2) A patient, fifty-one years old, had been hoarse for a year. Sudden dyspnoea called for tracheotomy. The laryngoscope showed a growth in the intra-arytenoid region. Partial extirpation was performed; death followed from pneumonia. Papilloma laryngis. (3) A patient, fifty-four years old, had hoarseness and dyspnoea. Tracheotomy; partial extirpation; death followed from pneumonia.

A table follows of 34 total extirpations, and 71 partial extirpations.

Michael.

WALKER, H. (Workshop).—**Tracheotomy for Foreign Body.** *British Medical Journal*, March 30, 1889; *Sheffield Medico-Chirurgical Society*, March 14, 1889.

NARRATION of a case in which a bean had been successfully removed from the larynx of a boy.

Hunter Mackenzie.

WHIPHAM and DELEPINE (London).—**Tubercular Lupus of the Larynx, Trachea, and Bronchi, producing Stenosis of the Trachea and Bronchi.** *British Medical Journal*, March 16, 1889; *Clinical Society of London*, March 8, 1889.

THIS was the case of a boy, aged fourteen years, who died the day following that on which tracheotomy was performed. Necropsy showed great constriction from sub-mucous thickening below the fourth ring of the trachea on the right side; there were no signs of tubercle in an active state, but there were a small cretaceous nodule and some fibrous puckering of the left apex. There was ulceration of the right vocal cord and ventricular band, as also of the right tonsil, septum nasi, and inferior turbinated bones.

Dr. Percy Kidd and Mr. Bathie considered that the malady was probably a combination of syphilis and tubercle. The specimen was referred to a committee.

Hunter Mackenzie.

JACOB, E. A. (Leeds).—**Tubercular Larynx.** *British Medical Journal*, April 20, 1889; *Leeds Medico-Chirurgical Society*, April 5, 1889.

DEMONSTRATION of sections of larynx (probably tubercular) in which sudden death occurred while the patient was coming to the hospital.

Hunter Mackenzie.

FOWLER, WALTER (London).—**Laryngeal Phthisis.** *British Medical Journal*, April 20, 1889; *Hunterian Society*, March 27, 1889.

FOUR specimens were exhibited. The chief interest in these consisted in the remarkable distortions the epiglottis had undergone during the tuberculous process.

Hunter Mackenzie.

PRINZING (Ulm).—**Laryngeal Phthisis, and its Treatment.** *Würzburg Med. Correspond.*, 1889, No. 30.

A REPORTING article.

Michael.

WILLIAMS, C. THEODORE (London).—**Anomalous Case of Aortic Aneurism.** *British Medical Journal*, April 20, 1889; *Medical Society of London*, April 15, 1889.

THE diagnosis in this case was aneurism of the ascending and transverse portions of the aorta pressing on the lower end of the trachea and left bronchus. Loud stridor accompanied inspiration and expiration; heart sound, normal; pulses and pupils, equal. There was swelling of the right vocal cord and ventricular band, with old syphilitic scarring of the pharynx. Attention was specially directed to the presence of permanent stridor, as being in contract to the intermittent dyspnoea of recurrent laryngeal pressure.

Dr. De Haviland Hall mentioned that pressure on one pneumo-gastric had been known to paralyse the abductors on both sides.

Hunter Mackenzie.

DYSON.—**Aneurism of Aorta.** *British Medical Journal*, March 30, 1889; *Sheffield Medico-Chirurgical Society*, March 14, 1889.

EXHIBITION of specimen of aneurism of the thoracic aorta, springing from the back part of the transverse portion of the arch. It pressed upon the trachea, and pushed it to the right. The symptoms were stridulous breathing, slight dulness over the manubrium and in the first left interspace, general bronchial catarrh, dyspnoea, continuous and paroxysmal. No alteration in the pupils or pulse.

Hunter Mackenzie.

WINDELSCHMIDT.—**Asphyxia from Occlusion of the Larynx by a Cherry.** *Monats. für Ohrenheilk.*, 1889, No. 9.

SUDDEN death of a child two years old while swallowing cherries, one of which passed into the larynx. After death the author found that the cherry was fixed by the hypertrophied tonsils, and had passed down the epiglottis.

Michael.

MACKEY, E. (Brighton).—**Foreign Body in Bronchus.** *British Medical Journal*, March 23, 1889; *Brighton Medico-Chirurgical Society*, February 7, 1889.

REPORT of the case of a child, aged three years, with signs of chronic pneumonia in the right lung, and a history of having swallowed part of plum-stone four months previously. Urgent dyspnoea occurred at the time, but passed away on shaking, slapping, etc. The child died suddenly, and on *post mortem* examination a long section of a plum-stone was found at the second division of the left bronchus. The tubes of the other lung were full of purulent secretion, which, it was thought, had floated the stone to the opposite bronchus, and caused sudden death.

In the discussion which followed, it was generally agreed that the trachea should have been opened early.

Hunter Mackenzie.

GULLIVER (London).—**Caseating Gland projecting into the Trachea.** *British Medical Journal*, March 23, 1889. *Pathological Society of London*, March 19, 1889.

EXHIBITION of a specimen in which a small hole in the wall of the

trachea was occupied by a mass of caseating gland, non-adherent to the margin of the opening through which it protruded. It was taken from the body of a child who had suffered from intermittent dyspnœa. Mr D'Arcy Power narrated a case in which a lymphatic gland had been ex-pectorated by a phthisical patient. In this case a healed wound of the trachea was found some months afterwards.

Hunter Mackenzie.

THYROID, NECK, &c.

TOMKINS, HARDING (Bristol).—**Acute Thyroiditis.** *British Medical Journal*, March 16, 1889; *Bristol Medico-Chirurgical Society*, February 13, 1889.

THE patient was a woman, aged twenty-seven. The attack lasted three weeks, and was treated by salicylate of soda and tincture of belladonna, with hot fomentations.

Hunter Mackenzie.

TAYLOR (London). — **Exophthalmic Goitre.** *British Medical Journal*, March 23, 1889; *Medical Society of London*, March 18, 1889.

EXHIBITION of a girl, aged fifteen years, presenting marked symptoms of exophthalmic goitre, with tremors in both hands. She was a nervous, emotional girl, and was the subject of congenital syphilis.

Hunter Mackenzie.

SEMON, FELIX (London).—**Unilateral Incomplete Graves' Disease after Removal of Nasal Polypi.** *British Medical Journal*, April 20, 1889; *Clinical Society of London*, April 12, 1889.

PATIENT exhibited and paper read. The author made references to several instances (five having been already recorded) in which intra-nasal operations had led to the diminution or disappearance of the symptoms of Graves' disease. He now brought forward this case to illustrate (it is believed, for the first time) that Graves' disease may follow upon intra-nasal operations.

Mr. R. B. Carter believed the alleged connection between nasal operation and exophthalmos a mere coincidence. He considered that, in the case now submitted, there was little or no protrusion of the eye-ball.

Hunter Mackenzie.

WHITE, W. HALE (London).—**The Pathology of the Central Nervous System in Exophthalmic Goitre.** *British Medical Journal*, March 30, 1889.

THE author believes that the case here recorded is the first in which changes have been found in the central nervous system in association with exophthalmic goitre, and which could also in any way explain it. These changes consisted in punctiform hæmorrhages, visible to the naked eye, and markedly discolouring the floor of the fourth ventricle.

Hunter Mackenzie.

SUCKLING, C. (Birmingham).—**Sporadic Cretinism.** *British Medical Journal*, April 20, 1889; *Midland Medical Society*, March 20, 1889.

EXHIBITION of child, aged four years, the subject of sporadic cretinism. No trace of the thyroid gland could be felt. The child had exactly the appearance of myxœdema. The tongue was large with hypertrophied papillæ, and usually projected from the mouth. The nose was broad and flattened; the lower lip was large, slightly cyanosed, and drooping; the neck was thick and short. The child's condition had not followed on any infantile disease.

Hunter Mackenzie.

NIXON, C. J. (Dublin).—**Myxœdema.** *British Medical Journal*, March 23, 1889; *Royal Academy of Medicine in Ireland, Medical Section*, March 1, 1889.

EXHIBITION of a patient, and notes of a case read. Hunter Mackenzie.

DAVIS, HENRY (Tuam).—**Mumps.** *British Medical Journal*, March 23, 1889.

NOTES of three unusual cases, one of abscess of the breast, and two of orchitis, in a district in which mumps was very prevalent.

Hunter Mackenzie.

EDITOR OF BRITISH MEDICAL JOURNAL (London).—**Hypertrophy of the Thymus in Children.** *British Medical Journal*, March 30, 1889.

AN annotation having reference to the article by Dr. Jacobi, of New York, published in the "Transactions of the Association of American Physicians, 1888." The gland, it appears, varies greatly in weight, up to 500 grains. Thymic asthma is now a recognized form of disease. The distance between the manubrium sterni and the vertebral column in an eight months' infant, is but four-fifths of an inch: an enlarged thymus, especially when congested or œdematous, suffices to fill the whole of this space, compressing the neighbouring organs, with fatal results. The propriety of taking the thymus into account in all cases of sudden death in infants, is pointed out.

Hunter Mackenzie.

JOMERS, R. F. (London).—**Primary Lympho-Sarcoma of Posterior Mediastinal Glands, involving the Right Lung with Enlarged Cervical Glands.** *St. Bartholomew's Hospital Reports*, Vol. 23, 1887.

IN this case the pharynx, larynx, and trachea were free; the ensuing dyspnoea was very great.

Hunter Mackenzie.

JOHNSON, RAYMOND (London).—**Tumour of the Neck.** *British Medical Journal*, March 30, 1889; *Clinical Society of London*, March 22, 1889.

EXHIBITION of a woman, aged fifty-three, with a malignant tumour of the thyroid of twelve years' duration. It had latterly rapidly increased in size.

Hunter Mackenzie.

VYSOKOVITCH, PROFESSOR V. (Kharkov).—**Scrofulous Glands of the Neck and their Relation to Tuberculosis.** *Transactions of the Third General Meeting of Russian Medical Men at St. Petersburg, 1889, No. 10, p. 336.*

IN order to elucidate the genuine nature of "scrofula," Professor Vysokovitch has undertaken the microscopical examination of, and inoculation experiments with, diseased lymphatic glands from seven patients operated upon by Professor Fischer, of Breslau. Two of the cases referred to, a boy of six, and a girl of nineteen, with scrofulous submaxillary glands in the stage of caseous degeneration, but with intact integuments, the glands proved to contain unmistakable tubercles, with giant cells and typical, though very scanty, tubercle bacilli. Some juice from the glands was inoculated into three rabbits and two guinea pigs (under the skin into the eye, abdominal cavity, etc.), and on the forty-second and eightieth day the animals were killed. In every one of them tuberculosis was found, though the changes were by far less intense than in the case of similar inoculations with phthisical sputum. Quite identical results were obtained in two other cases, namely, a scrofulous adult man and woman with caseous cervical glands complicated with fistule. In a fifth case, that of a boy of nine, with the submaxillary glands of the size of a hen's egg, neither caseous degeneration, tubercles, nor tubercle-bacilli could be detected, the inoculation giving negative results. In a sixth patient, an infant of six months, with eczema and acute suppurative inflammation of the submaxillary glands, the pus was found to contain only the streptococcus pyogenes, but no Koch's bacilli. No tuberculosis could be obtained by the inoculation of guinea pigs. The seventh case was that of a man with enormous inguinal lymphadenitis secondary to caries of the foot. The glands existed teemed with tubercles and giant cells, but the tubercle microbes were present in still lesser numbers than in the scrofulous cases mentioned above. The inoculation, however, gave rise to more intense lesions than in the latter. The author arrives at the following conclusions:—

1. The so-called "scrofulous" disease of the cervical (or other) lymphatic glands represents, undoubtedly, a genuine tubercular process induced by Koch's tubercle bacilli.

2. A scanty amount of the bacteria discovered in the degenerated glands cannot possibly speak against a pathogenic significance of the micro-organisms, since the latter may be present in but trifling numbers even in cases of genuine acute tuberculosis of the lymphatic glands (as in the author's last case).

3. It is highly probable that, after a prolonged sojourn in the glands, the tubercle bacilli gradually lose their virulence. Hence, when inoculated into animals they may give rise to a correspondingly retarded development of tuberculosis. At all events, to settle this highly important question, further extensive researches are necessary. In particular, it must be determined experimentally, in what way and to what extent the quantity of the microbes inoculated can affect the development of tuberculosis in the animal experimented upon.

4. "Scrofulous" disease of the glands must be strictly differentiated

from lymphadenoma or lymphosarcoma, as well as from acute lymphadenitis, which have nothing to do with tuberculosis.

[In the course of a discussion, Dr. E. E. Ivanoff, agreeing with the speaker, said that "scrofula" represented singly "a terminological anachronism." During his extensive hospital practice, embracing about 2000 stationary cases, he had not yet met with a simple case of so-called "scrofula" excluding a correct diagnosis of tuberculosis.] Valerius Idelson.

REVIEW.

W. D. MILLER (Berlin).—**The Micro-Organisms of the Oral Cavity, and the Local and General Diseases which are produced by them.** *Leipzig, bei Georg Thieme, 305 pp., with 112 woodcuts in the text, and one chromo-lithographic table.*

THIS book, written by a well-known dentist, and consequently primarily dealing with matters regarding the teeth, is of the greatest interest to all whose practice concerns the mouth and its neighbourhood, especially in our time when the knowledge of pathological micro-organisms is the basis of rational therapeutics. The microbes of the mouth are often inspired or swallowed, so that, as the author proves, many diseases of the intestinal and respiratory tracts may arise in this manner. In the first part of the work the author gives a description of the different forms of bacteria—their physiology, their struggle of life, and their relation to external influences, and chemical and physical agencies. The second chapter describes the influence of the contents of the mouth, mucus, teeth, etc., on the life of the micro-organisms. The third chapter describes the different bacteria and cocci of the oral cavity. To those already known, the author has by his researches added some very interesting new organisms. The fourth chapter treats of the relation of the micro-organisms to fermentative processes; the fifth to the eighth chapters, with their relation to their dental caries. The second part treats of the pathogenic micro-organisms, and the diseases produced by them. The ninth chapter treats of the fluids of the mouth as carriers of toxic matters and parasitic pathological microbes. The near relation between the fifth nerve and the ganglia ciliare, oticum, spheno-palatinum, and sub-maxillare, declares frequent reflex neuroses of the neighbouring organs, and the frequent presence of infectious microbes in the oral cavity and carious teeth the frequency of infectious disease produced by them.

Examinations have shown that human saliva produces infections on subcutaneous injection. This is caused by the presence of pathogenic organisms, especially by the so-called micrococcus of sputum septicemia. The author describes the bacillus crassus sputigenus, staphylococcus and streptococcus pyogenes, micrococcus tetragenus found by other

observers, and then describes some organisms discovered by himself, such as *micrococcus gingivæ pyogenes*, *bacterium gingivæ pyogenes*, *bacillus dentalis irridans*, *bacillus pulpæ pyogenes*. The organisms of the oral cavity may produce general disease in several ways: (1) By traumata of the mucous membranes, such as septic infections following extraction of teeth. The author describes some fatal cases, and recommends strong antiseptics to prevent it. (2) Gangrenous dental pulp often produces inflammation of the jaw, and diseases of the nose and antrum of Highmore, and frequently inflammations of the lymphatic glands. (3) Diseases produced by the direct effect of the organisms on the mucous membrane of the mouth and pharynx. Inflammatory processes of the mucous membranes of the pharynx, and chronic catarrhs of the whole intestinal tube, may be caused by the fermentative effect of the organisms on the fluids of the mouth. (4) By aspiration of the bacilli and their products septic processes in the lungs, such as gangrene and pneumonia, may be caused. The author communicates his experiments, which prove the bad effects which follow the inoculation of the organisms on the contents of the stomach and intestines, and gives an extensive description of *pyorrhœa gingivalis*, a disease produced by special bacteria. The presence of certain specific pathogenic organisms in the oral cavity can prove stomatomycosis, sarcinea, mycosis tonsillaris, stomatitis ulcerosa, phlegmonosa, diphtheria, pneumonia, syphilis, typhus, and actino-mycosis. The last chapter gives some remarks on "Spross, Schimmel, and Spaltpilze."

Michael.

THE INTERNATIONAL MEDICAL CONGRESS, 1889.

AT the meeting of this Congress to be held in Berlin, from the 4th to the 10th August, 1890, there will be eighteen sub-sections, the 12th of which will be that of laryngology and rhinology. It will be presided over by Professor B. Fraenkel, of Berlin, and the organising committee of the sub-section will be Drs. Beschoner (Dresden), B. Fraenkel (Berlin), Gottstein (Breslau), A. Hartmann (Berlin), Jurasz (Heidelberg), H. Krause (Berlin), Michael (Hamburg), Schech (Munich), and M. Schmidt (Frankfort-on-Maine).



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